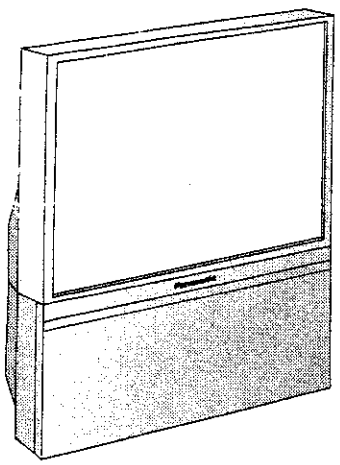
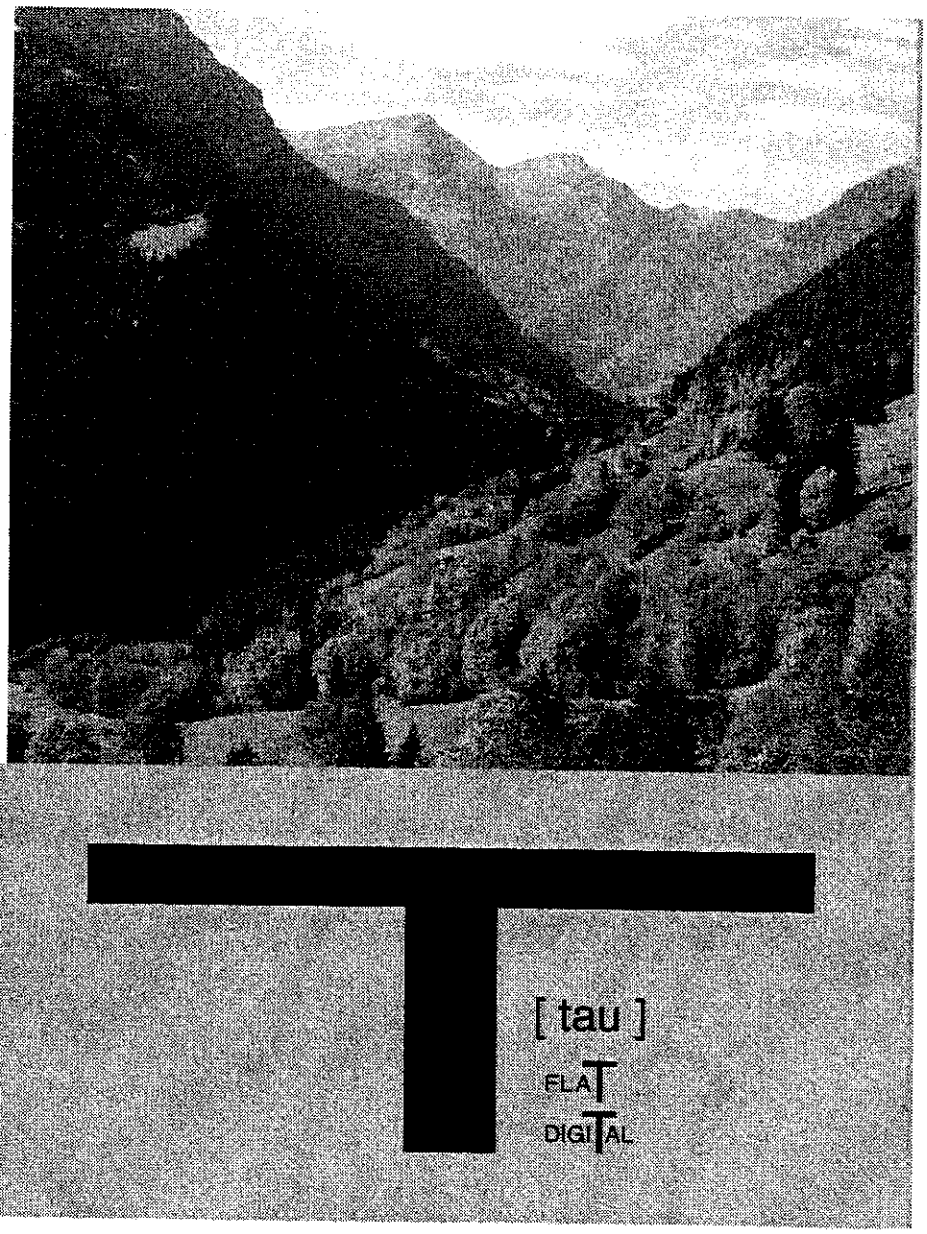


Panasonic

Projection Television

Operating Instructions

Model No. **TX-51P100 Series**
TC-51P100 Series



This is a combined Operating Instruction manual for all the above series of models.

Please read these instructions before operating your set and retain them for future reference.

TQBC0185

Dear Panasonic Customer

Welcome to the Panasonic family of customers. We hope that you will have many years of enjoyment from your new colour television set. To obtain maximum benefit from your set, please read these Instructions before making any adjustments, and retain them for future reference. Retain your purchase receipt also, and note down the Model Number and Serial Number of your set in the space provided on the rear cover of these Instructions.

AR/AS Coating on the Screen (for TC-51P100G, TC-51P100H)

The Screen is coated with a special material to hinder ambient light reflection and dust adherence. It aids picture performance during high ambient light conditions. The AR/AS coating may be observed when the set is switched off, since the coating give the screen surface a faint purplish or blue hue. Take care not to mark or scratch this coating.

Note:

(1) The long time (max. 2 hours) use of TV game on the set is not recommended since the signal from TV game may be the cause of damage on picture projection tubes on the set.

(2) Do not allow any still picture or parts of picture that do not move on the screen for an extended length of time. These picture can adversely affect your picture projection tubes.
Some examples of still images are Television programming logos, Video games, Computers and Text programmes, etc. If still picture cannot be avoided, reduce the brightness and contrast levels of the picture to minimize any damage that might occur.

(3) In order to minimize any damage to the projection tubes, this set uses the PICTURE SHIFT function (Refer to page 46) to change (shift) the entire picture approximately 4 mm every 20 minutes.

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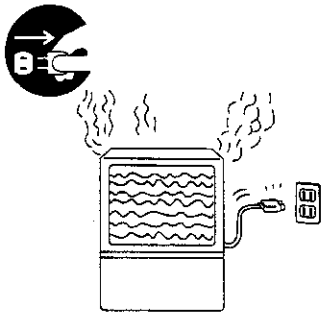
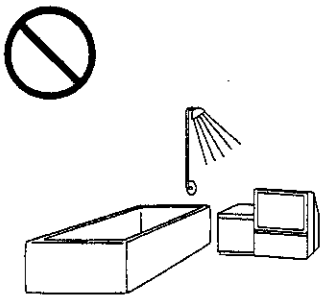
Warnings and Cautions

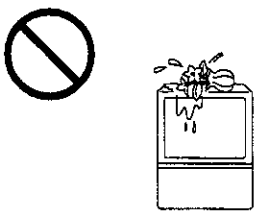
⚠Warnings



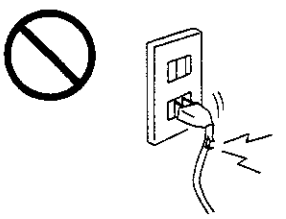
Unplug the power cord in the event of any malfunction (screen goes blank, no sound, odd sounds, smoke or unusual odors coming from the unit). Unplug the power cord if foreign matter or water falls into the unit, or if the unit is dropped or the cabinet is damaged.



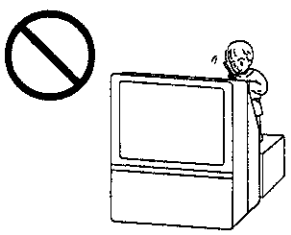
DO NOT use this unit near water. (Near a bath tub, etc.)



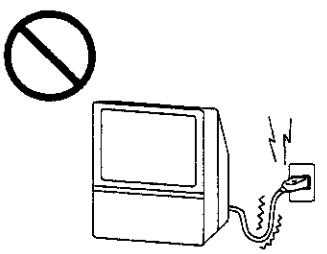
DO NOT place any of the following on the unit:
Flower vases, flower pots, cups, small metal objects, or cosmetics containers, chemicals or water.



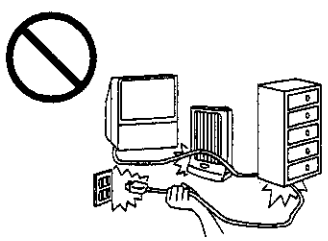
DO NOT use if the power cord or power plug is damaged, or if the plug does not fit tightly into the socket.



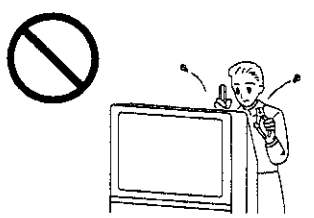
DO NOT insert foreign objects (metal or easily flammable objects).



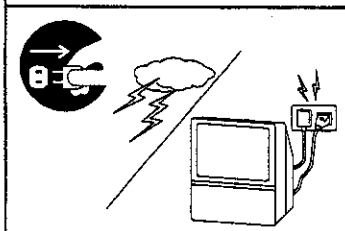
DO NOT use at a voltage other than indicated



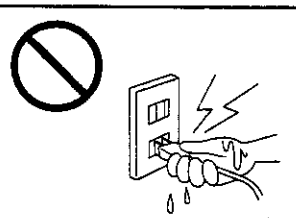
TAKE CARE NOT to damage the power cord.



DO NOT remove the rear cover as live parts and High Voltage components are accessible when the rear cover is removed.



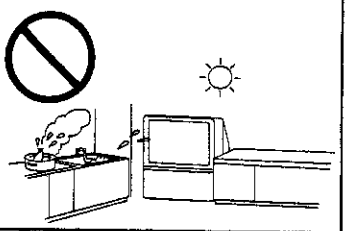
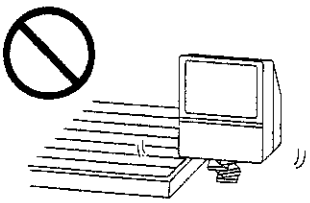
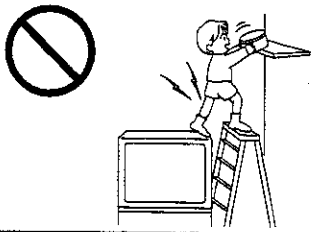
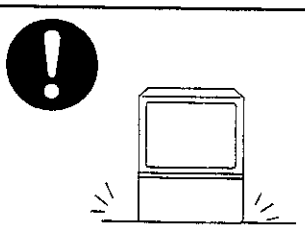
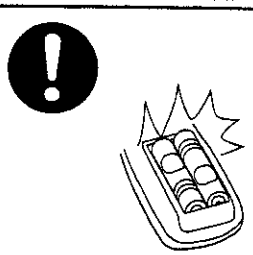
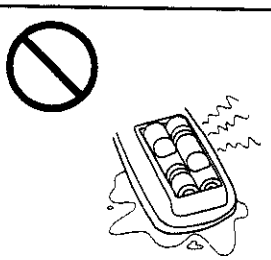
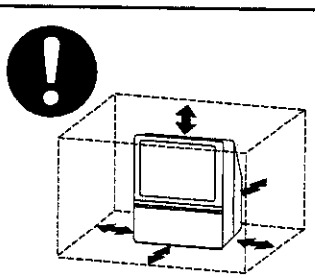
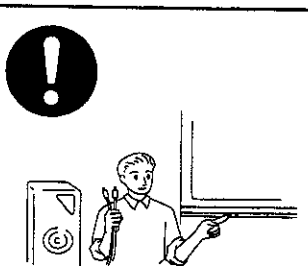
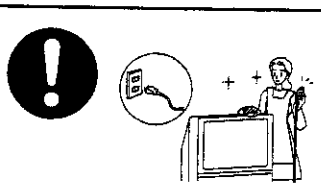
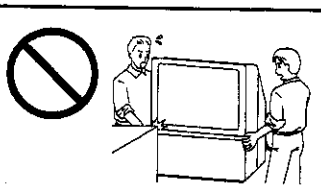
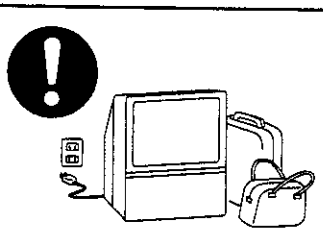
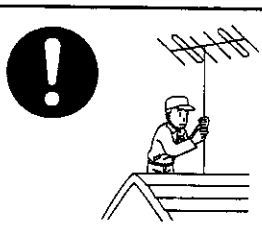
DO NOT touch the aerial cable and this unit when there is lightning.



DO NOT touch the power plug if your hands are wet.

Warnings and Cautions

⚠Cautions

	DO NOT place in humid or dusty location, or areas exposed to smoke or steam. DO NOT place in direct sunlight and other sources of direct heat.		DO NOT place in an unstable location
	DO NOT stand, or place heavy objects on the unit. Particular care should be taken by families with small children.		Place in a safe location.
	When inserting batteries, ensure that the polarities (positive and negative) are correctly aligned. Insert as shown on remote control. If inserted incorrectly, battery fluid may leak, and fire, injury, or damage to surrounding components may result.		Do not mix new and old batteries. Use only the specified batteries. Failure to follow this precaution may result in leakage of battery fluid. Fire, injury, or damage to surrounding components may also result.
	Adequate ventilation is essential to prevent failure of electrical components, we recommend that a gap of at least 10cm (⟷) is left all around this unit even when it is placed inside a cabinet or between shelves.		Turn the power "Off" before connecting other electrical equipment.
	Before cleaning, unplug the power plug from the socket.		DO NOT joint the unit.
	Unplug the power plug from the socket if you are not going to use the unit for an extended period.		Ask your sales outlet to install the aerial.

To ensure continued excellent performance by this product, periodic cleaning is recommended. See page 57 for more information.

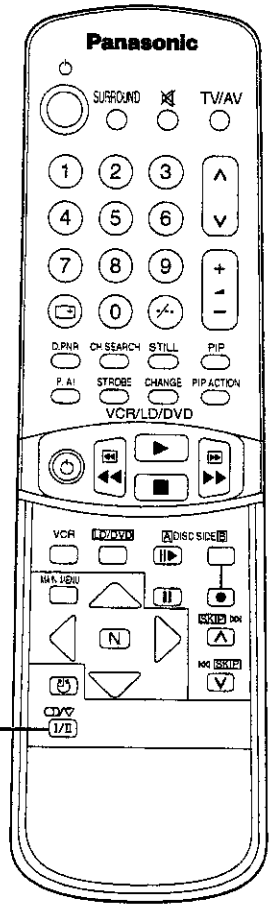
To protect the TV's components, it has been equipped with a fan that begins to operate when the surrounding atmosphere reaches a specified temperature. The operation of this fan is not a malfunction.

Before Operating This Set

How to Use This Manual

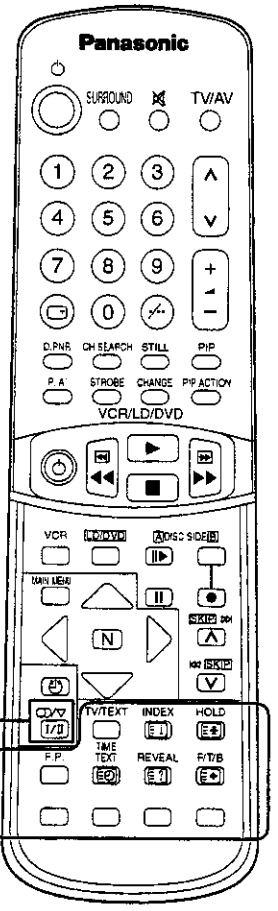
1. Check the Model Number of your TV set; the Model Number is shown on the rear cover name plate on the set. Use the table on the opposite page to confirm which features your particular Model is equipped with. This will help you to known which sections of the manual apply to your set.
2. Check the Part Number on the rear of your Remote Control handpiece, and note the functions available, as shown below.

TC-51P100G
TC-51P100H



Stereo / Bilingual
Selection button

TX-51P100H
TX-51P100X



Stereo / Bilingual
Selection button

TELETEXT Operation
button

Quick Reference Guide for your TV Set

Please check the model number of your set.
This Manual applies to several Models and there are slight differences among them.

Please check the table below to see what your TV is equipped with before you begin using these Operating Instructions. Instructions are given for all functions, please disregard these which do not apply to your TV.

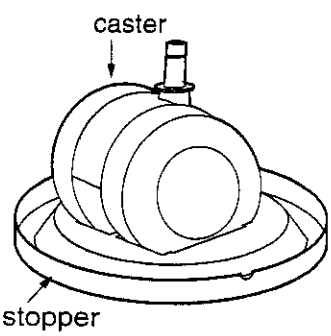
	Model Number	TC-51P100G	TC-51P100H	TX-51P100H	TX-51P100X
Destination	China	*			
	Hong Kong		*		
	Southeast Asia			*	
	Australia			*	
	NZ			*	
	Middle East				*
Multi Language	English	*	*	*	*
	Chinese	*	*	*	
	Arabic				*
Power Source	AC 110-240V 50/60Hz				*
	AC 220-240V 50/60Hz	*	*	*	

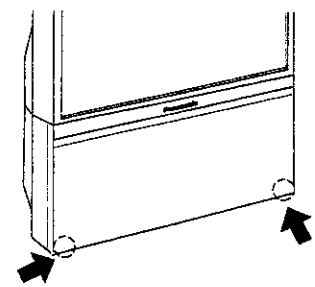
*: Function available

Securing the casters

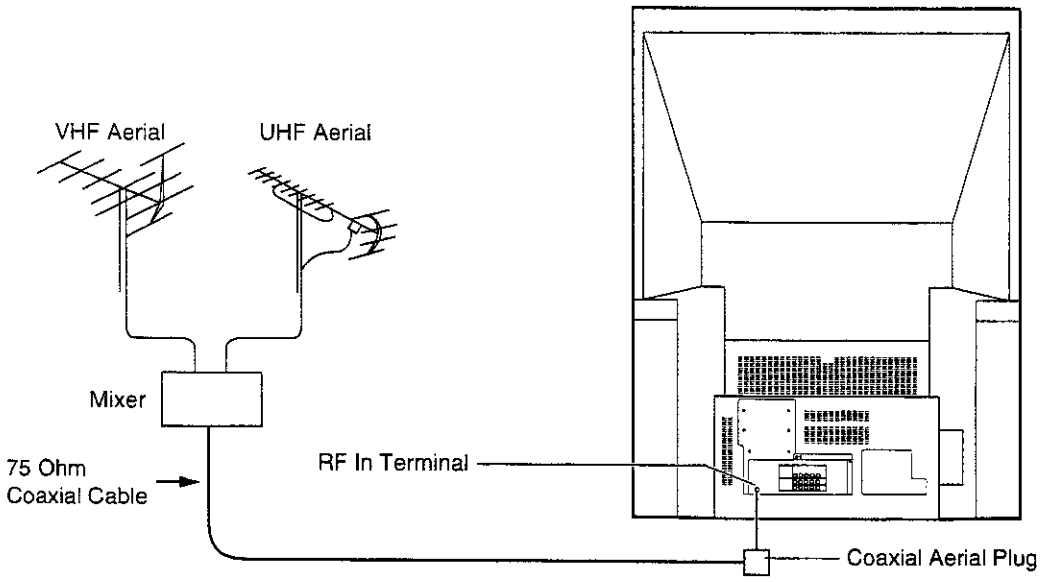
To ensure safety, secure the casters in place using the supplied stoppers.

This set is equipped with casters to enable it to be easily moved. When positioning the set, place the supplied stoppers under the casters to secure the casters and prevent the set from moving.





Connecting the Aerial Cable to the RF In Terminal

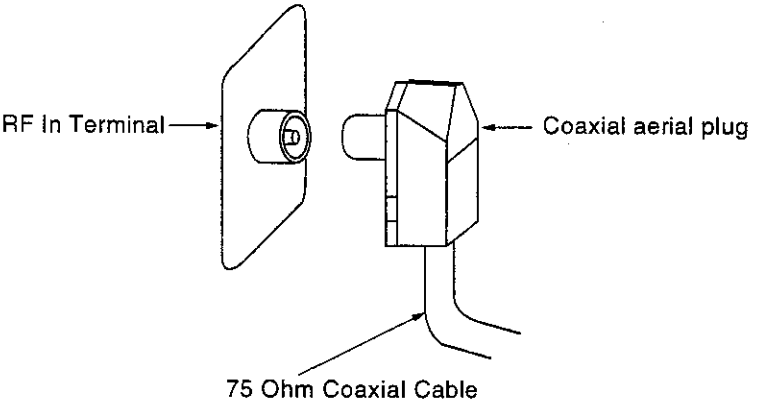


To obtain optimum quality picture and sound, an Aerial, the correct cable (75 Ohm coaxial) and the correct terminating plug are required.

If a communal Aerial system is used, you may require the correct connection cable and plug between the wall Aerisocket and your set.

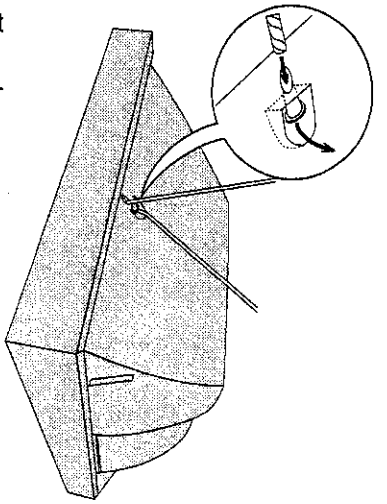
Your local Television Service Centre or Dealer may be able to assist you in obtaining the correct Aerial system for your particular area and accessories required.

Any matters regarding Aerial installation, upgrading of existing systems or accessories required, and the costs incurred, are the responsibility of you, the Customer.



Safety Precaution

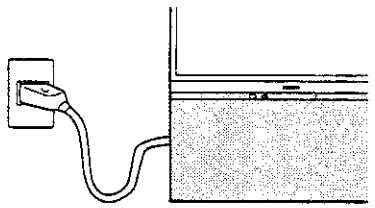
Please take safety precautions to prevent the unit form falling over.
The unit may fall over during earthquakes, or if someone stands on or shakes the TV.



Fixing to a wall
Use a strong rope or a chain to fasten the TV firmly to a strong support such as a wall or a pillar.

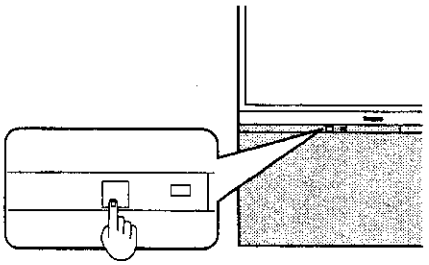
Before Operating This Set

Connecting the Plug to the Wall Outlet



Note:
Main plug types vary between countries. The main plug shown at left may therefore not be the type fitted to your set.
When connecting the main plug to the wall outlet, the power indicator will light (Orange).

How to Turn the Power On



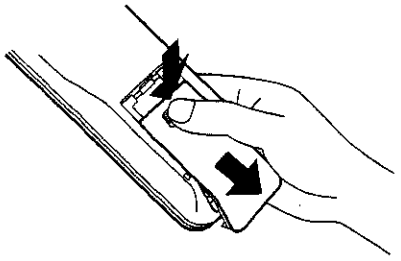
Push the Power switch on Television to turn the set on.
The Power Indicator will light.

Power-OFF ····· Orange
Stand-by ⏻ ····· Red
Power-ON ····· Green

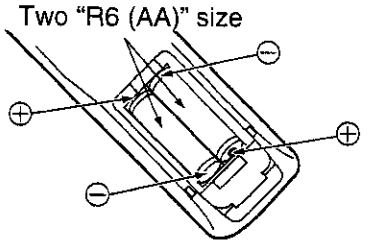
Note:
When in the Stand-by condition (Refer to page 32), it is possible to turn the TV set on by pushing the "Power (Stand-by)" button any of the "Direct Programme Number Selection" buttons (0~9) and Programme Number Up and Down buttons on the TV set or Remote Control.

Battery Installation

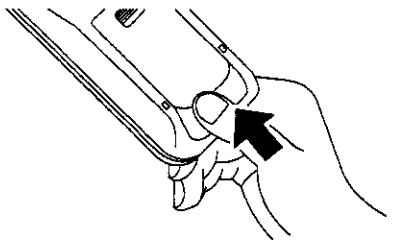
1
Open the cover.
Apply slight downward pressure while pulling towards the bottom.



2
Batteries: Use two "R6 (AA)" size batteries.
Insert the batteries ensuring correct polarity.
This is identifiable by the "+" and "–" symbols on both the batteries and inside the battery compartment.



3
Replace the cover.

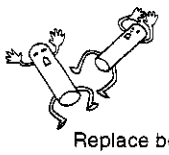


Do not use rechargeable (Ni-Cd) batteries.
They are different in shape and performance and may fail to ensure correct operation.

⚠ Battery cautions

The incorrect use of batteries can cause electrolyte leakage which will corrode the Remote Control or cause the batteries to burst.

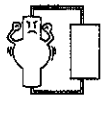
Old Batteries



New Batteries

Replace both batteries at the same time.

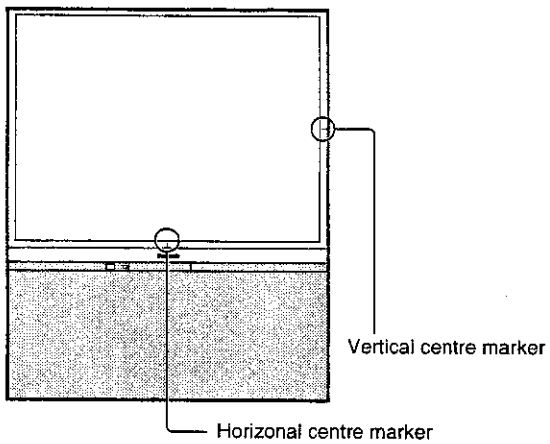
Don't mix battery types
(alkaline with carbon zinc, etc.)



Don't Recharge.

Convergence Adjustment

Convergence Adjustment mode

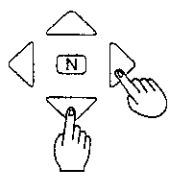


Prior to adjustment, tune the broadcast signal to the video input signal and operate the set for more than 60 minutes. If the location or direction of the set is changed or moved, the display may be out of alignment.

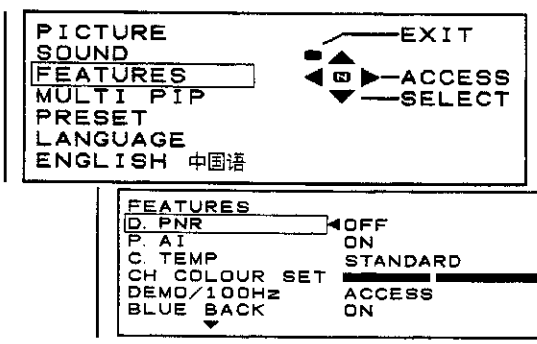
If necessary, carry out the following procedures once with PAL signal and again with the NTSC signal.

1

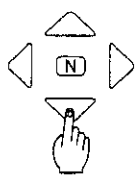
Push the "Main Menu" button.



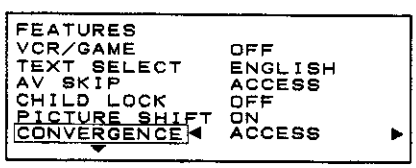
Select the "FEATURES" menu by using the Position Up "∧" or Down "∨" button.
Push the Position Left "<" or Right ">" button to enter FEATURES function.



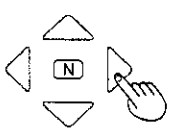
2



Select the "CONVERGENCE" menu by using the Position Up "∧" or Down "∨" button.



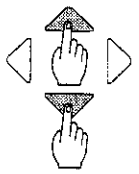
3

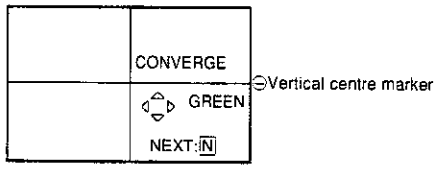


Push the Position Left "<" or Right ">" button to enter CONVERGENCE ADJUSTMENT mode.

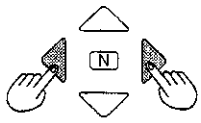
Convergence Adjustment for GREEN, RED and BLUE

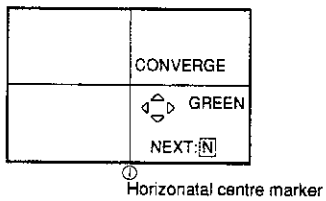
Use the Positon Up "∧" or Down "∨" button to align the horizontal green line with the vertical centre marker.



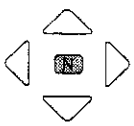


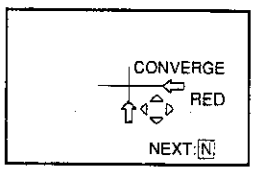
Use the Position Left "<" or Right ">" button to align the vertical green line with the horizontal centre marker.



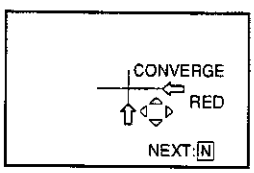


Push the "N" button to adjust the red mode. (Stores green)

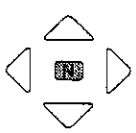


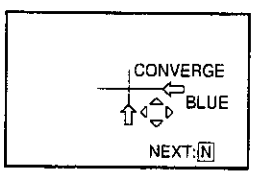


Use the Position Up "∧" or Down "∨", Left "<" or Right ">" buttons to align the red line with the green line. (Becomes a yellow line)

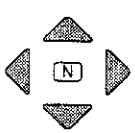


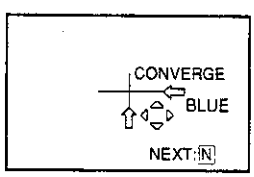
Push the "N" button to adjust the blue mode. (Stores red)



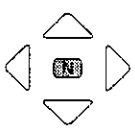


Use the Position Up "∧" or Down "∨" , Left "<" or Right ">" buttons to align the blue line with the yellow line. (Becomes a white line)





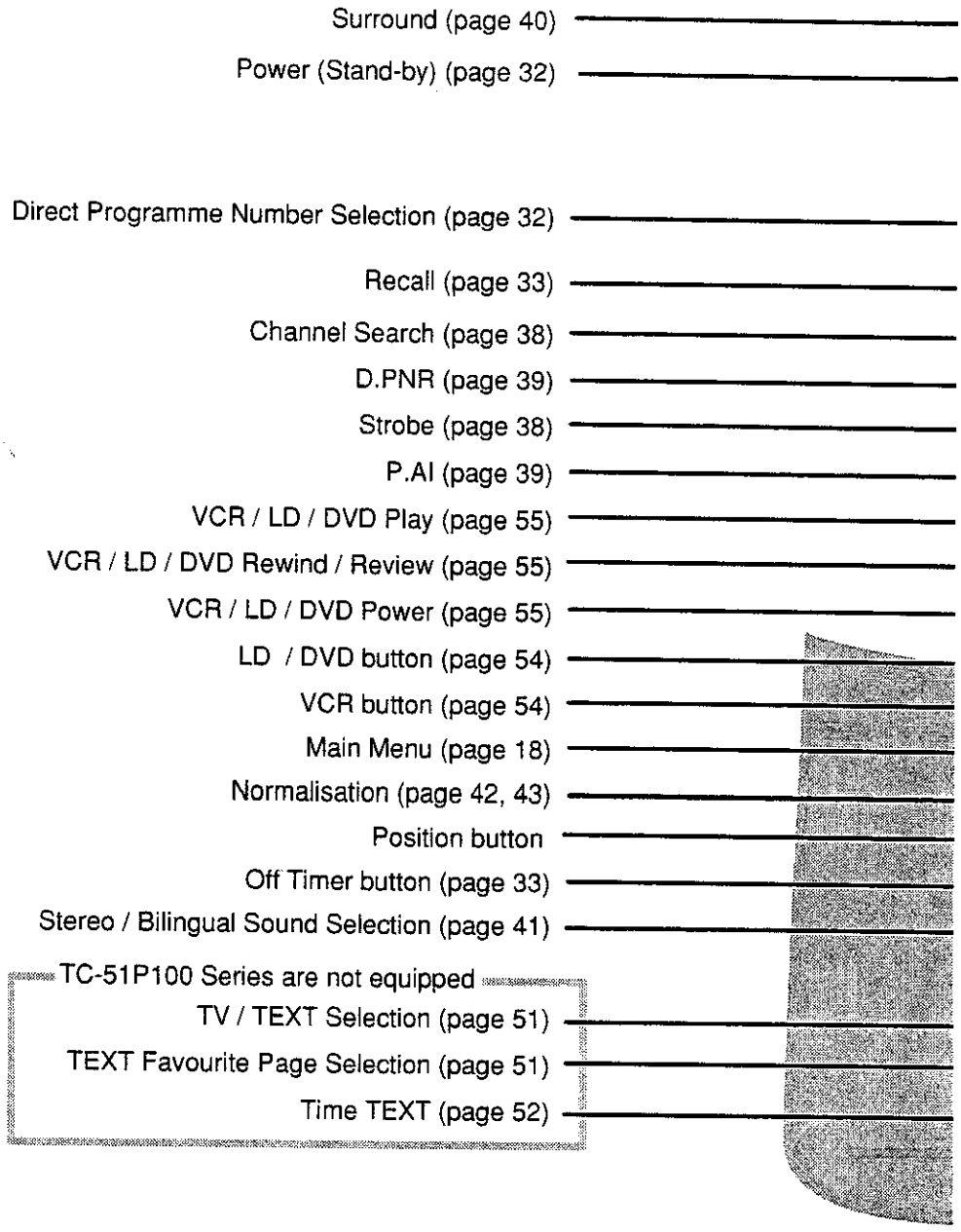
Push the "N" button to return to the normal viewing. (Stores blue)

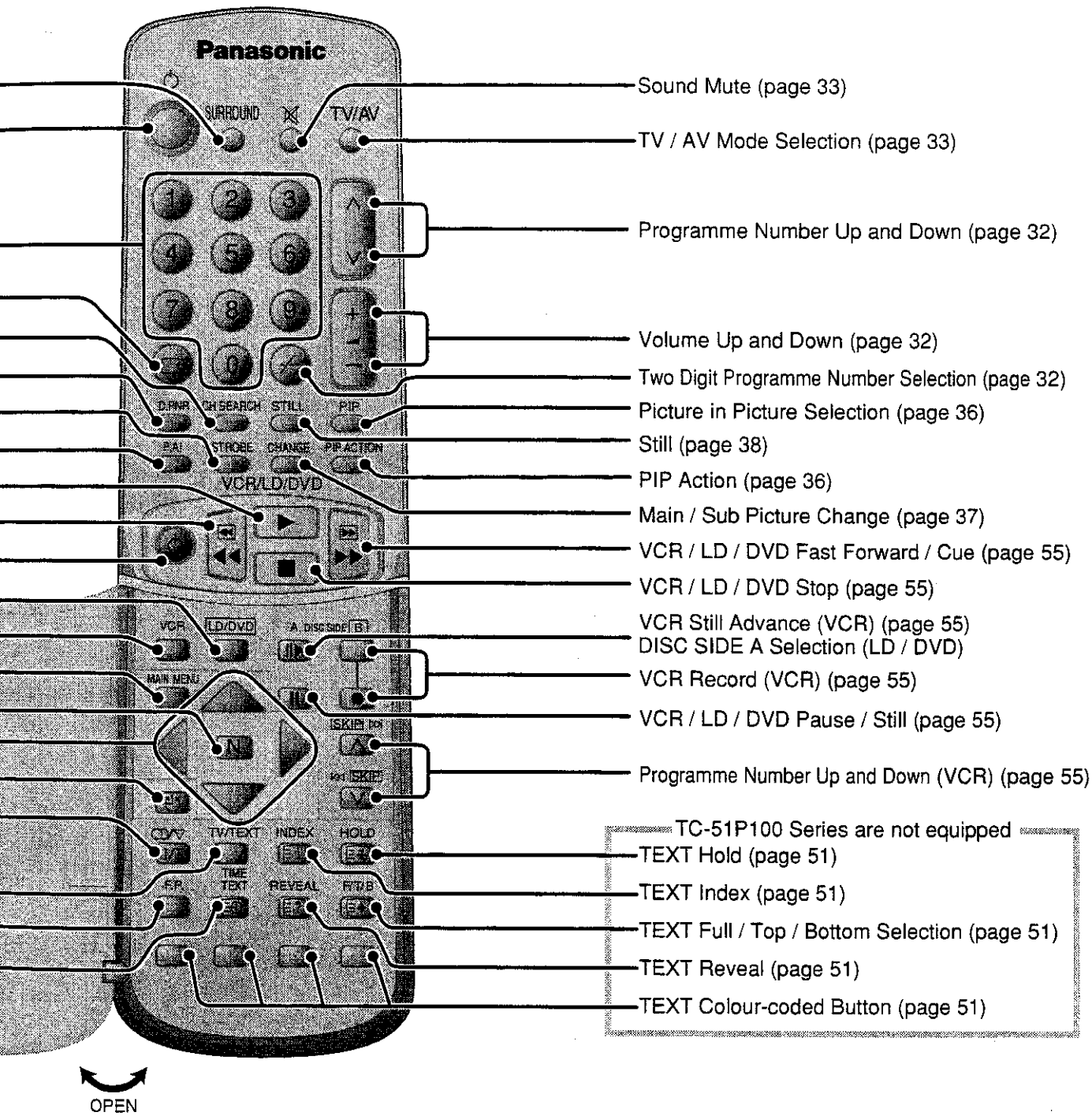


If you wish to view a video with a different colour system (PAL / SECAM, NTSC), repeat the steps above while displaying a picture.

Location of Controls

Remote Control


Surround (page 40)
Power (Stand-by) (page 32)
Direct Programme Number Selection (page 32)
Recall (page 33)
Channel Search (page 38)
D.PNR (page 39)
Strobe (page 38)
P.AI (page 39)
VCR / LD / DVD Play (page 55)
VCR / LD / DVD Rewind / Review (page 55)
VCR / LD / DVD Power (page 55)
LD / DVD button (page 54)
VCR button (page 54)
Main Menu (page 18)
Normalisation (page 42, 43)
Position button
Off Timer button (page 33)
Stereo / Bilingual Sound Selection (page 41)
TC-51P100 Series are not equipped
TV / TEXT Selection (page 51)
TEXT Favourite Page Selection (page 51)
Time TEXT (page 52)



Sound Mute (page 33)

TV / AV Mode Selection (page 33)

Programme Number Up and Down (page 32)

Volume Up and Down (page 32)

Two Digit Programme Number Selection (page 32)

Picture in Picture Selection (page 36)

Still (page 38)

PIP Action (page 36)

Main / Sub Picture Change (page 37)

VCR / LD / DVD Fast Forward / Cue (page 55)

VCR / LD / DVD Stop (page 55)

VCR Still Advance (VCR) (page 55)
DISC SIDE A Selection (LD / DVD)

VCR Record (VCR) (page 55)

VCR / LD / DVD Pause / Still (page 55)

Programme Number Up and Down (VCR) (page 55)

TC-51P100 Series are not equipped

TEXT Hold (page 51)

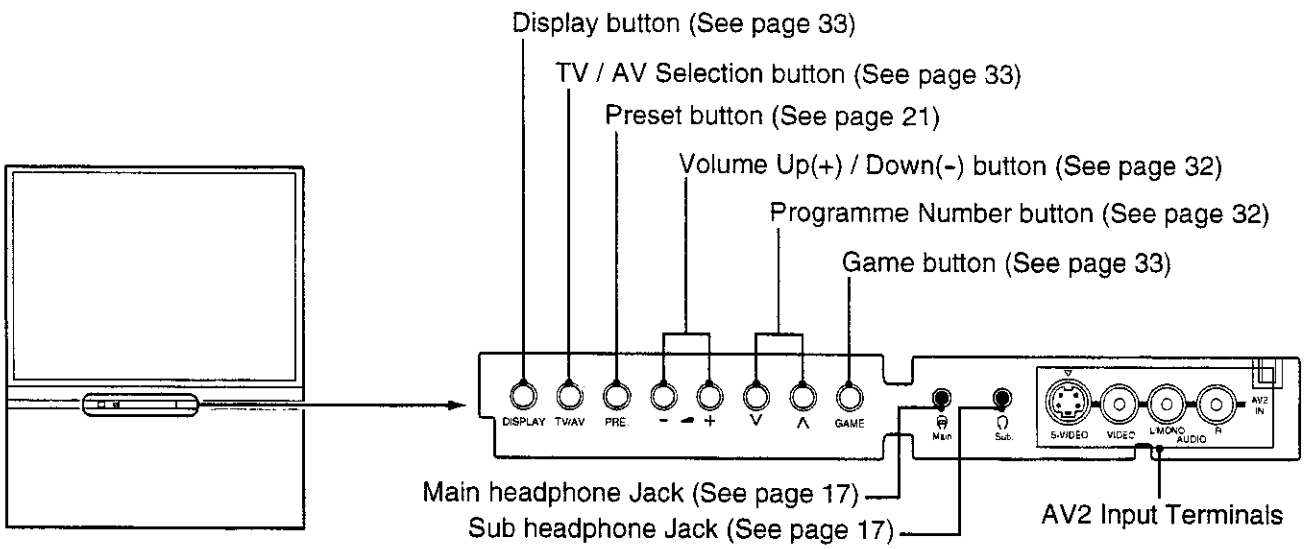
TEXT Index (page 51)

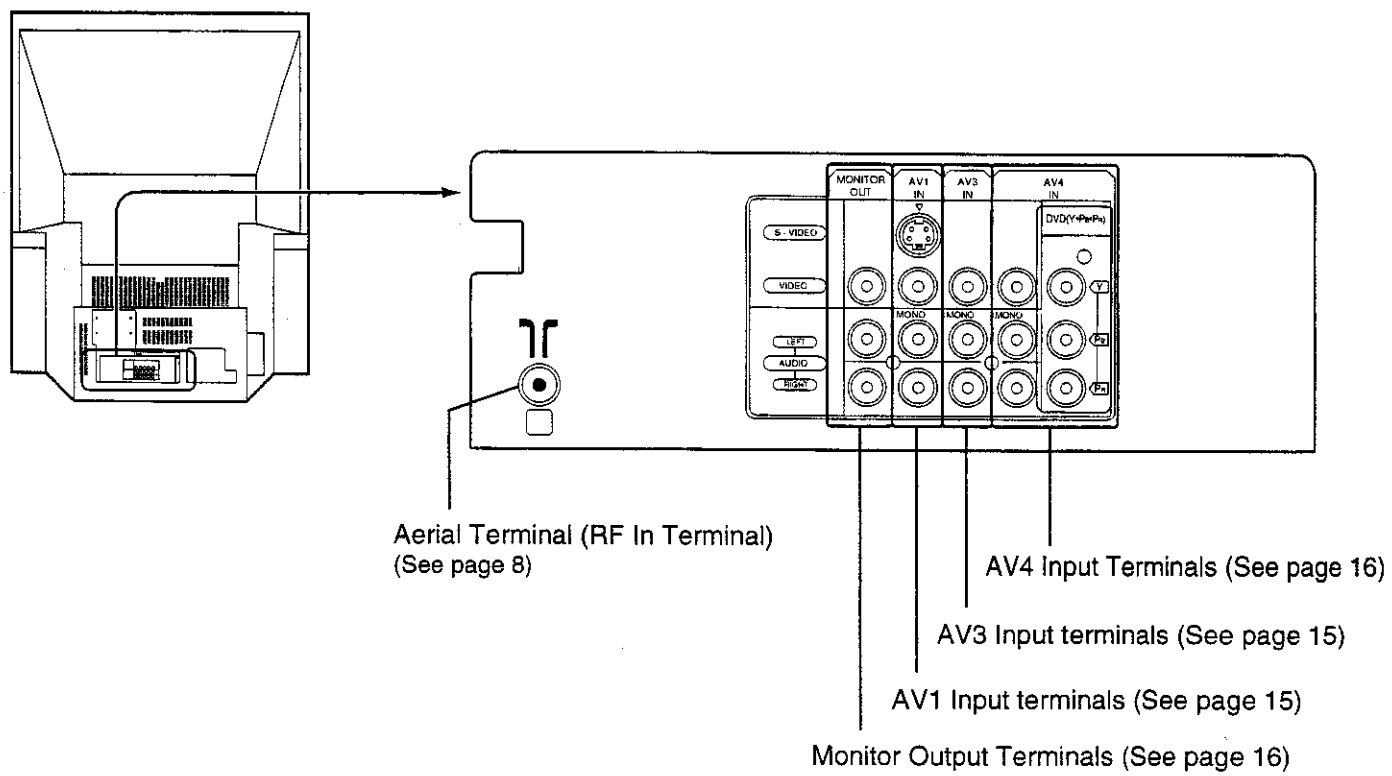
TEXT Full / Top / Bottom Selection (page 51)

TEXT Reveal (page 51)

TEXT Colour-coded Button (page 51)

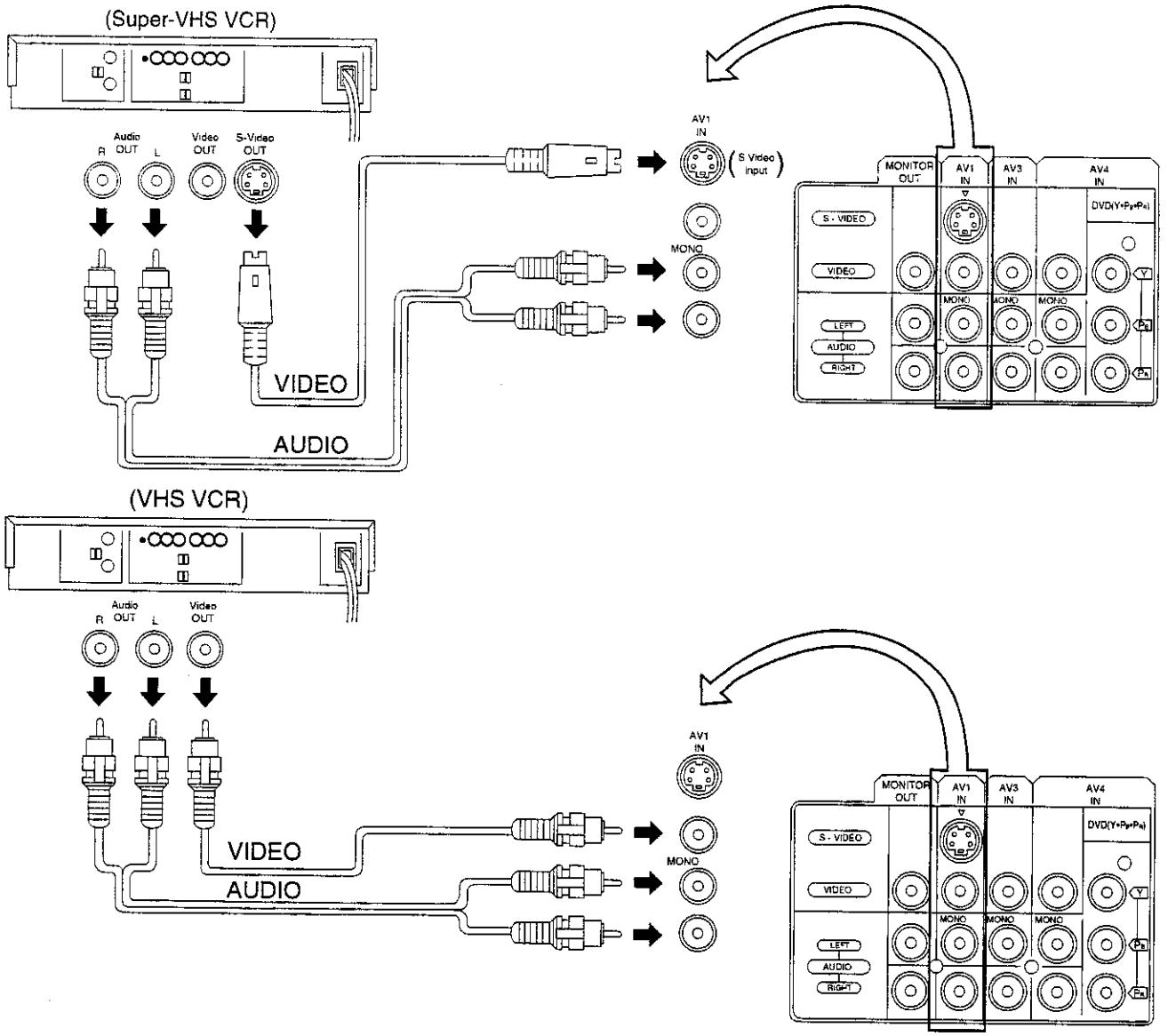
Controls and Terminals on the TV





Connections

How to connect the "AV1, 2, 3 or 4" Input Terminals



Note:

(1) When AV1, AV2, AV3 or AV4 is selected, and that AV mode has no input picture signal, the Background Colour of the TV screen will change. (This only occurs if the Blue-Back function is set to the ON condition; refer to page 45 for details.)

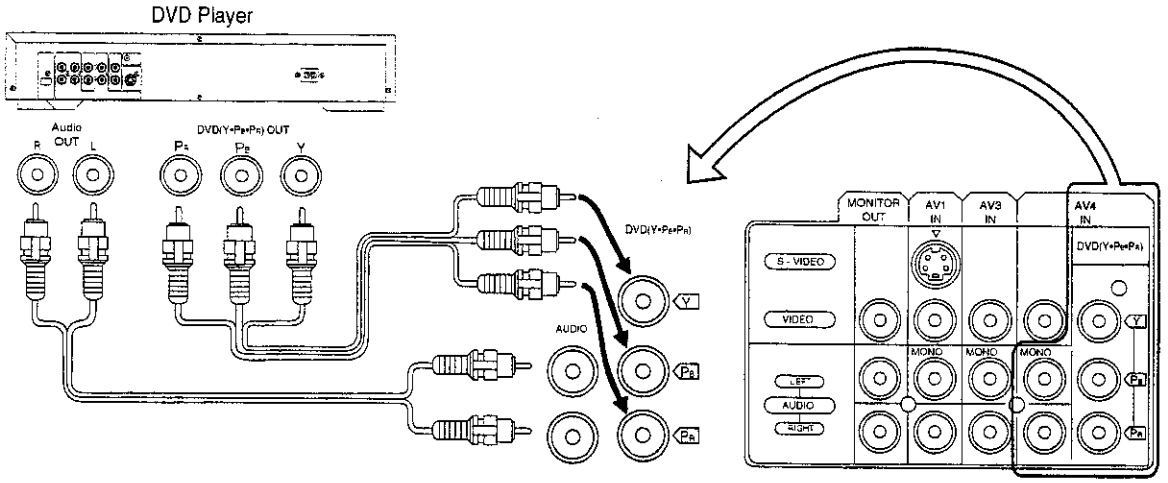
(2) When an S-Video cable is connected to the S-Video terminal, the Video input will be automatically switched off for that AV mode.

(3) When a Monaural VCR is used, connect the Monaural Audio cable to the Audio "L" (Left) terminal.

(4) Similar connections are available at the AV1, AV2, AV3 and AV4 input terminals.
Select the desired AV input position by pushing the TV/AV button. (Refer to page 33)

(5) The AV4 audio input terminals serves as the audio input terminal for both the Video input and for the DVD input.

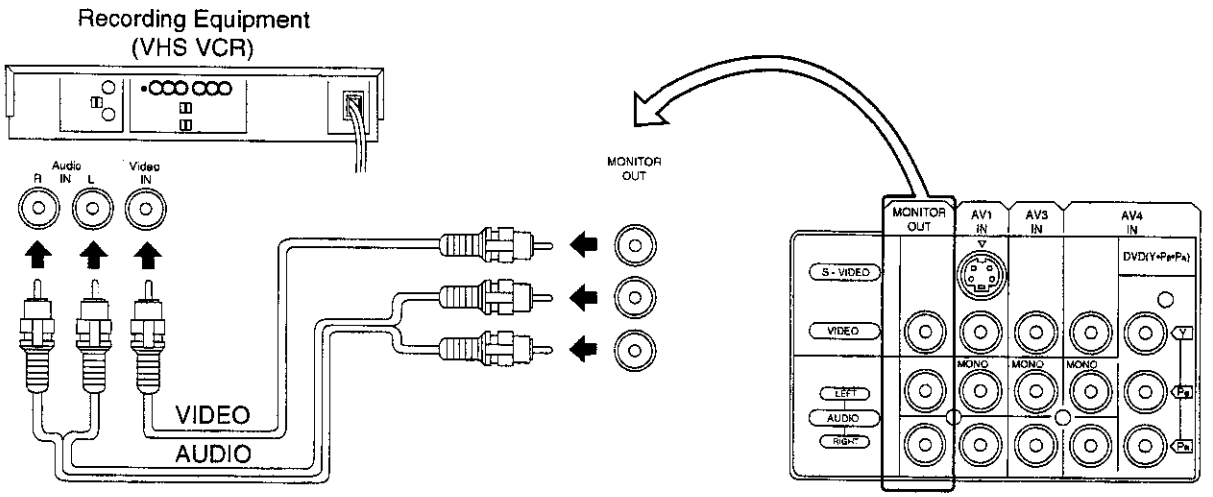
How to connect the DVD Input Terminals



Note:
(1) The AV4 audio signal is common for both AV4 and DVD input signal terminals.
(2) The DVD signal input terminal takes priority over the AV4 video signal input terminal.

How to connect the AV Monitor Output Terminals to other equipment.

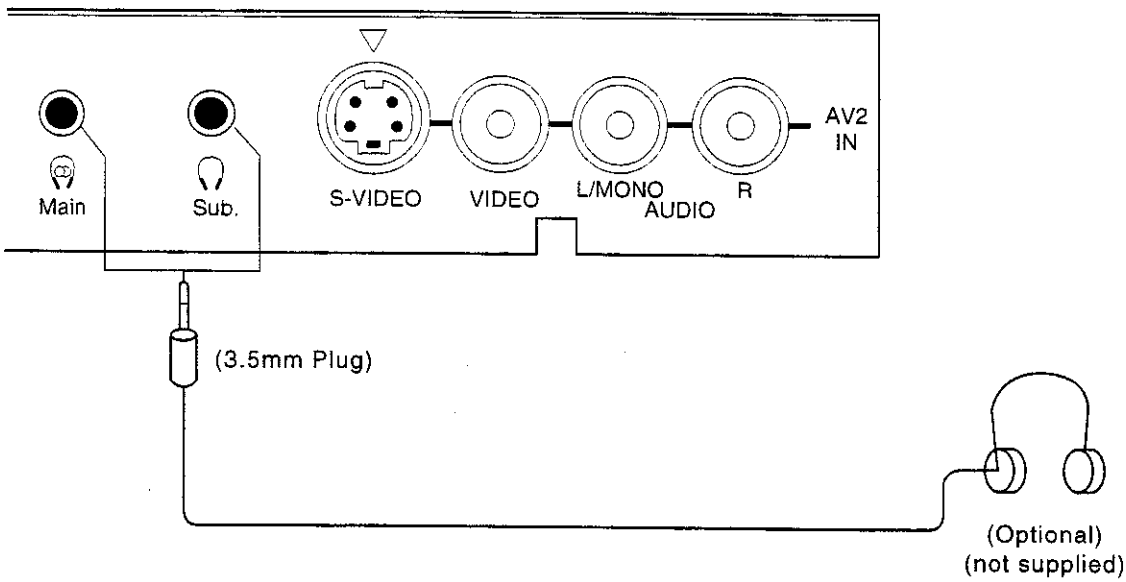
The "Monitor Out" Terminals output the same signals as main picture on the TV screen and sound from the speaker at that time, e.g. TV programmes or signals from AV1, AV2, AV3 or AV4 input.



Note:
(1) Never connect the same video recorder with both the VIDEO IN and MONITOR OUT terminals on this TV set, as this could cause incorrect operation.
(2) The monitor output emits the main picture normal video and audio signals.
(3) Teletext display on screen will not be output at the MONITOR OUT terminals.
(4) Even if the television is in picture-in-picture condition, MONITOR OUT terminals output the same signals as main picture on the screen and sound from speakers. Sub picture including strobe, still, channel search, etc. will not be output at the MONITOR OUT terminals.
(5) DVD signal (Y, P_B, P_R) are not output at the MONITOR out terminals.

Connecting Headphones

Connect headphones as follows.



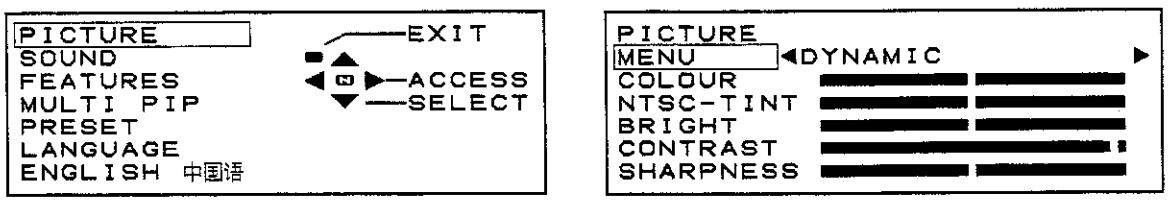
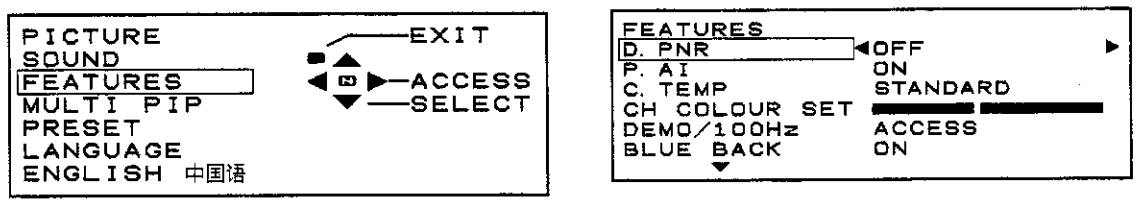
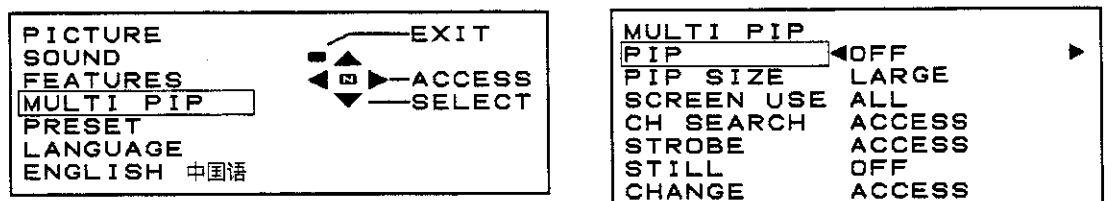
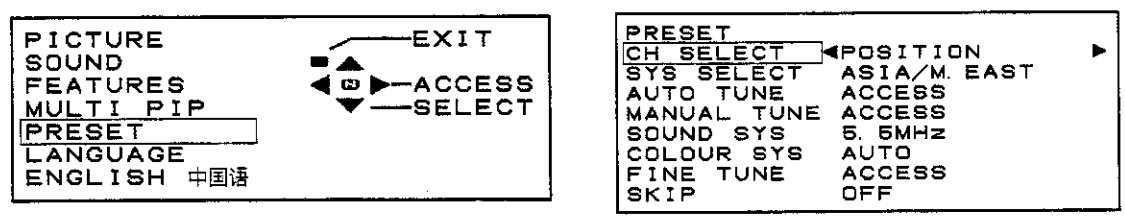
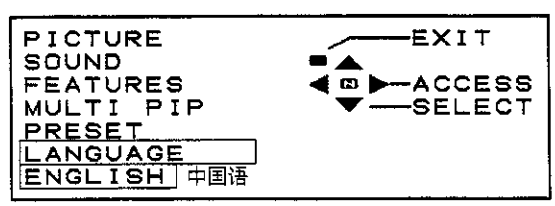
You can listen to sound from each of the headphones plugs as shown below.

Screen condition		Speaker Sound	Main Headphones	Sub Headphones	Monitor Output
Single picture/ Teletext	A	A (Stereo)	A (Stereo)	A (Mono)	A (Stereo)
Picture in Picture	A B	A (Stereo)	A (Stereo)	B (Mono)	A (Stereo)
Picture in Picture/ CHANGE	B A	B (Stereo)	B (Stereo)	A (Mono)	B (Stereo)

Main Headphones plug:
When a Main Headphones plug is inserted into the Headphones socket, all speakers will be automatically disconnected; only the Main Headphones will function.
Use Volume Up "+" or Down "–" button to control volume level.
Sub Headphones plug:
For the sub Headphones volume control, refer to page 37.

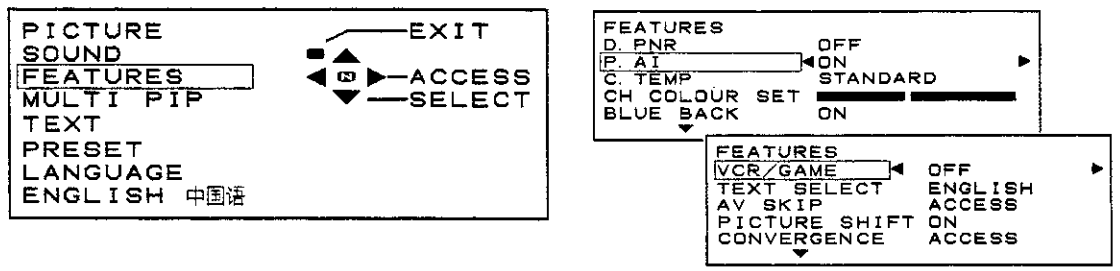
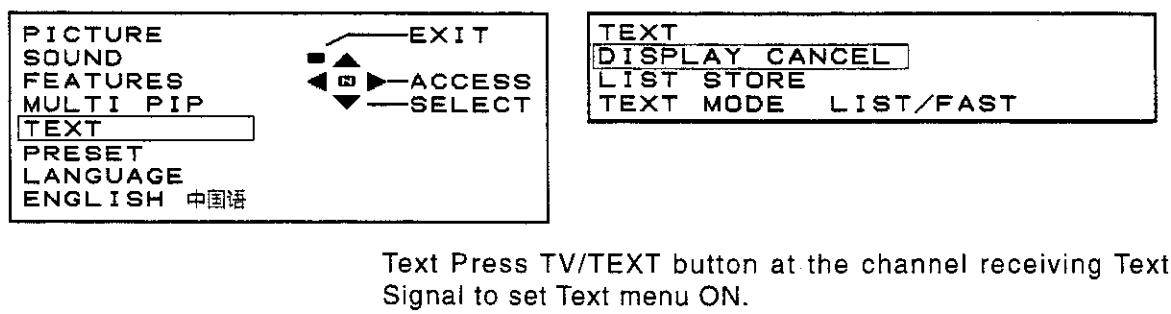
Flow Chart of Main menu

When the "MAIN MENU" button is pushed at the Main menu screen, the screen display will return to the normal viewing condition.
When the "MAIN MENU" button is pushed at each menu screen (Picture, Sound, Features, Language, Preset, Multi PIP), the screen display will return to the Main menu screen.

Menu	On Screen Indication
Picture	
Sound	
Features	
Multi PIP	
Preset	
Language	

Flow Chart of Main menu

TELETEXT mode

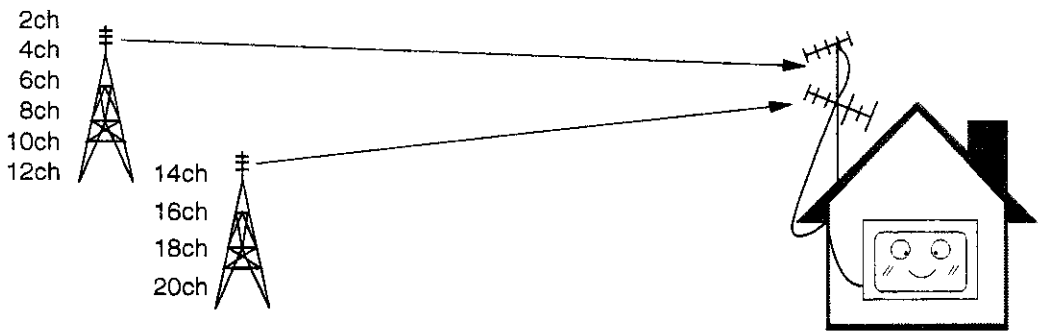
Menu	On Screen Indication
FEATURES	
Text	

Text Press TV/TEXT button at the channel receiving Text Signal to set Text menu ON.
TEXT mode is accessed upon pressing "MAIN MENU" button.

Tuning Procedure

Channel Selection

Select the most easily viewed channel selection method.



Example

Programme Number	Channel Display	Received Channel
1	2	2
2	4	4
3	6	6
4	8	8
5	10	10
6	12	12
7	14	14
8	16	16
9	18	18
10	20	20

POSITION SELECT

When the Channel Selection is on POS. (Position), and Auto Tune is performed, the unit memories the channels tuned in order from programme No.1.

Push the button ① to view channel 2.
Push the button ② to view channel 4.
Push the button ③ to view channel 6.

During position mode various reception channels can be viewed.

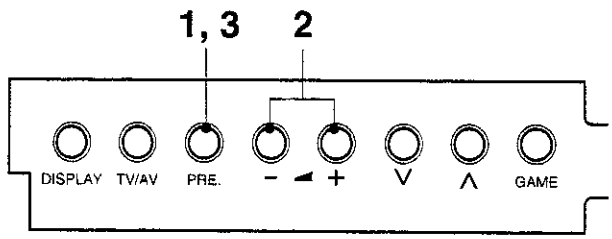
Example

Programme Number	Channel Display	Received Channel
1	–	–
2	2	2
3	–	–
4	4	4
5	–	–
6	6	6
7	–	–
8	8	8
9	–	–
10	10	10
⋮	⋮	⋮
20	20	20
⋮	⋮	⋮

DIRECT SELECT

When the Channel Selection is on DIRECT, and Auto Tune is performed, the unit memories the programme number which is the same as the channel tuned.
This method allows you to select the desired channel by pushing the channel display number directly on the remote control to select the station. The channel display numbers for the broadcast stations in each region are listed on page 23.

Tuning Procedure



(TV set)

Before Regional System Selection and AUTO tuning, set the "CHANNEL SELECT" mode, as detailed below.

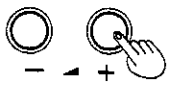
1

Push the "PRE." (PRESET) button, setting the Preset Menu to "CH SELECT".

1
CH1

PRESET
CH SELECT ◄POSITION ►
SYS SELECT ASIA/M. EAST
AUTO TUNE ACCESS
MANUAL TUNE ACCESS
SOUND SYS 5. 5MHz
COLOUR SYS AUTO
FINE TUNE ACCESS
SKIP OFF

"CH SELECT" Condition

2 

Select the "CH SELECT (Channel Select)" Mode by pushing the Volume Up "+" or Down "–" button.

1
CH1

PRESET
CH SELECT ◄DIRECT ►
SYS SELECT ASIA/M. EAST
AUTO TUNE ACCESS
MANUAL TUNE ACCESS
SOUND SYS 5. 5MHz
COLOUR SYS AUTO
FINE TUNE ACCESS
SKIP OFF

Setting range when the "POSITION" has been selected: Position 0-99
Setting range when the "DIRECT" has been selected: Channel 1-125

The channel select indicator will change as follows.
DIRECT↔POSITION.

3

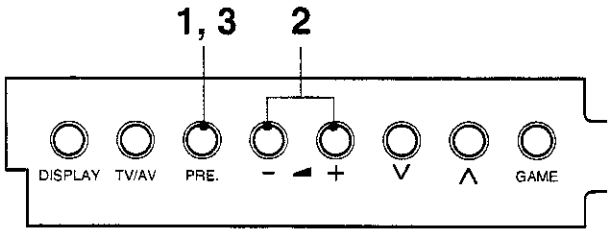
Push the "PRE." (PRESET) button 8 times.

1
CH1

This returns the set to the normal viewing condition.

Tuning Procedure

Regional System Selection



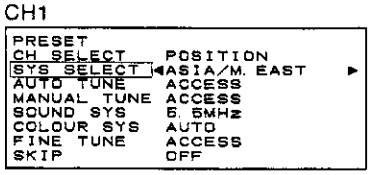
(TV set)

Before AUTO tuning and MANUAL tuning, set the "SYSTEM SELECT" mode, as detailed below.

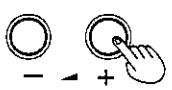
1

Push the "PRE." (PRESET) button twice, setting the Preset Menu to "SYS SELECT".

1
CH1

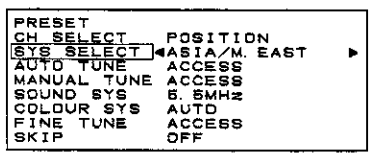


"SYS SELECT" Condition.

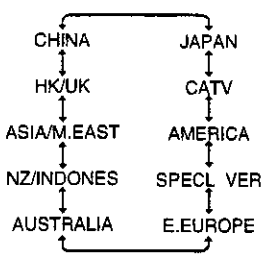
2 

Select the appropriate System by pushing the Volume Up "+" or Down "-" button.

1
CH1



The system select indicator will change as follows.



3

Push the "PRE." (PRESET) button 7 times.

This returns the set to the normal viewing condition.

System Select by Regional

SYSTEM SELECT	Region
CHINA	China
HK/UK	Hong Kong, United Kingdom
ASIA/M•E	Malaysia, Singapore, Thailand, Asia countries, Kuwait, Saudi Arabia, United Arab Emirates, Middle East countries, etc.
NZ/INDONES	New Zealand, Indonesia, etc.
AUSTRALIA	Australia
E•EUROPE	CIS, Poland, etc.
SPECL VER	South Africa
AMERICA	U.S.A., Chile, Mexico, Panama, Pelu, Philippines, Taiwan, Venezuela, etc.
CATV	USA CATV
JAPAN	Japan

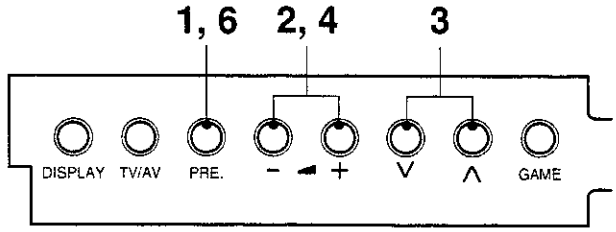
Channel Allocation

- CATV (USA CATV) channel numbers as recommended by the joint EIA/NCTA Engineering committee and published as EIA INTERIM STANDARD No.6-CABLE TELEVISION CHANNEL IDENTIFICATION PLAN-MAY 1983.
- The receiving channels are as follows;

SYS SELECT	CHINA	HK/UK	ASIA/M•E	NZ/INDONES	AUSTRALIA	E•EUROPE	SPECL VER	AMERICA	CATV	JAPAN
CH DISPLAY	RECEIVE CHANNEL									
0	–	–	–	–	0	–	–	–	–	–
1	1	–	–	1	1	1	1	–	1	1
2	2	–	2	2	2	2	2	2	2	2
⌇	⌇	–	⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇
11	⌇	–	11	11	11	11	11	⌇	⌇	⌇
12	12	–	12	–	12	12	12	⌇	⌇	12
13	13	–	–	–	–	–	13	13	⌇	13
14	⌇	–	–	–	–	–	–	14	⌇	⌇
15	⌇	–	–	–	5A	–	–	⌇	⌇	⌇
⌇	⌇	–	–	–	–	–	–	⌇	⌇	⌇
19	⌇	–	–	–	9A	–	–	⌇	⌇	⌇
20	⌇	–	–	–	–	–	–	⌇	⌇	⌇
21	⌇	21	21	21	21	21	21	⌇	⌇	⌇
⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇
28	⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇
⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇
57	57	⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇
58	–	⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇
⌇	–	⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇
62	–	62	62	62	62	62	62	62	62	62
63	–	63	63	63	63	63	63	63	63	C13
⌇	–	⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇
69	–	69	69	69	69	69	69	69	⌇	⌇
70	–	–	–	–	E65	–	–	–	⌇	⌇
⌇	–	–	–	–	⌇	–	–	–	⌇	⌇
73	–	–	–	–	⌇	–	–	–	⌇	⌇
74	–	S'1	S'1	S'1	E69	S'1	S'1	–	⌇	⌇
75	–	S'2	S'2	S'2	S01	–	S'2	–	⌇	⌇
76	–	S'3	S'3	S'3	S02	–	S'3	–	⌇	⌇
77	–	–	–	–	S03	–	–	–	⌇	⌇
78	–	–	–	–	–	–	–	–	⌇	⌇
79	–	–	–	–	–	–	–	–	⌇	⌇
80	–	S1	S1	S1	S1	S1	S1	–	⌇	⌇
81	Z1	S2	S2	S2	S2	S2	S2	–	⌇	⌇
⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇	–	⌇	⌇
89	Z9	S10	S10	S10	S10	S10	S10	–	⌇	⌇
90	Z10	S11	S11	S11	S11	S11	–	–	⌇	⌇
91	Z11	S12	S12	S12	S12	S12	–	–	⌇	⌇
92	Z12	S13	S13	S13	S13	S13	–	–	⌇	⌇
93	Z13	S14	S14	S14	S14	S14	S14	–	⌇	⌇
94	Z14	S15	S15	S15	S15	S15	S15	–	⌇	⌇
95	Z15	S16	S16	S16	S16	S16	S16	–	⌇	⌇
96	Z16	S17	S17	S17	S17	S17	S17	–	⌇	⌇
97	Z17	S18	S18	S18	S18	S18	S18	–	⌇	⌇
98	Z18	S19	S19	S19	S19	S19	S19	–	⌇	⌇
99	Z19	S20	S20	S20	S20	S20	S20	–	99	C49
100	Z20	S21	S21	S21	S21	S21	S21	–	100	–
⌇	⌇	⌇	⌇	⌇	⌇	⌇	⌇	–	⌇	–
117	Z37	⌇	⌇	⌇	⌇	⌇	⌇	–	⌇	–
⌇	–	⌇	⌇	⌇	⌇	⌇	⌇	–	⌇	–
120	–	S41	S41	S41	S41	S41	S41	–	⌇	–
⌇	–	–	–	–	–	–	–	–	⌇	–
125	–	–	–	–	–	–	–	–	125	–

Tuning Procedure

Automatic Tune (Channel Select and Regional System must already be set; Refer to pages 20 to 23)



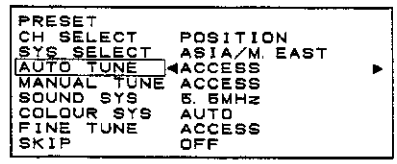
(TV set)

This TV uses automatic tuning to determine whether or not a broadcast signal is being sent which it can receive, and automatically prepares so that the channel selection can respond to both the position select and direct select modes.

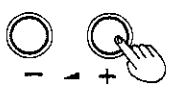
1

Push the "PRE." (PRESET) button 3 times.

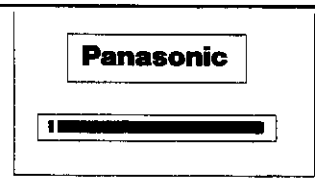
1
CH1



Automatic Search "AUTO TUNE" Condition.

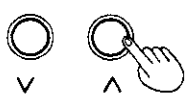
2 

Push the Volume Up "+" or Down "–" button.



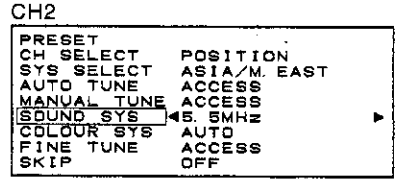
Search Start.

The best tuning position is automatically memorized.

3 

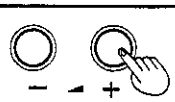
After all stations are tuned, the on-screen display will automatically change from "AUTO TUNE" to "SOUND SYS" Position. Confirm the sound condition of each Programme Number by using the Programme Number Up "∧" button.

2
CH2



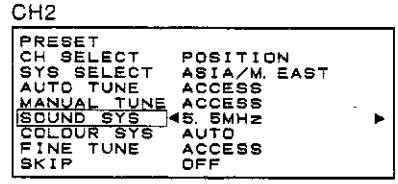
If the Sound is not clear or no sound is produced on a Programme Number, then follow the next Step 4.

Note:
When sound volume is too small to confirm, turn it up by using the sound volume button on the remote control.

4 

If necessary, push the Volume Up "+" or Down "–" button, to improve the Sound quality.

2
CH2



The sound indicator will change as follows.

4.5MHz ⟷ 5.5MHz
⇕ ⇕
6.5MHz ⟷ 6.0MHz

Tuning Procedure

5

Use the Programme Number Up "∧" button to sequentially check each station.
If necessary, repeat steps 3 to 4 for each Programme Number.

6

After all stations are tuned, push the "PRE." (PRESET) button 4 times.

This returns the set to the normal viewing condition. Programme Number memory locations.

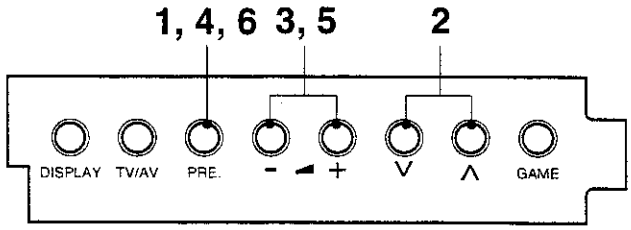
Helpful Hint

(1) To tune, push the Main Menu button and Position button on the Remote Control.
By following the display in the Preset Menu, setting can be formed using only the Remote Control.
(2) If a clear picture with correct colours cannot be obtained when a Broadcast or AV signal is received, refer to the "Colour System Selection" operation on page 35.
(3) After the Automatic tune is finished, push the Programme Number "∧" button to confirm the tuning condition for each Programme Number. If some Programme Numbers are unused, it is possible to skip such Programme Numbers. Please refer to the Programme Number Skip operation on page 30.
(4) Repeated pushing of the "PRE." (PRESET) button changes the Preset Menu as follows;

→ CH SELECT (Page 21) → SYS SELECT (Page 22) → AUTO TUNE (Page 24) → MANUAL TUNE (Page 26) → SOUND SYS (Page 34)
TV Mode (Normal viewing condition) ← SKIP (Page 30) ← FINE TUNE (Page 28) ← COLOUR SYS (Page 35) ←

Tuning Procedure

Manual Tune (Channel Select and Regional System must already be set; Refer to pages 20 to 23)

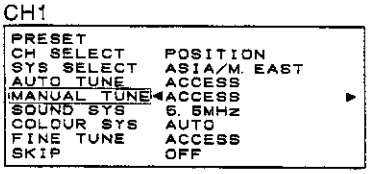


(TV set)

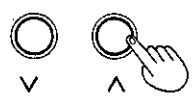
1

Push the "PRE." (PRESET) button 4 times.

1
CH1

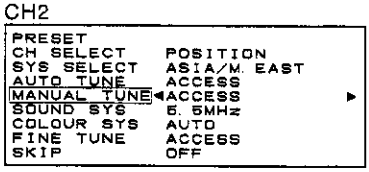


Manual Search "MANUAL TUNE" Condition.

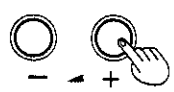
2 

Push either the Programme Number Up "∧" or Down "∨" button.

2
CH2



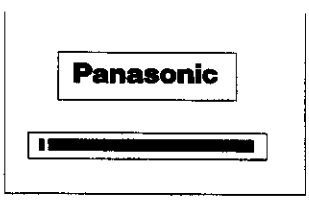
Select the desired Programme Number.

3 

Push the Volume Up "+" or Down "–" button.

Volume "+" : Next higher Channel

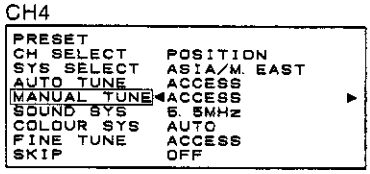
Volume "–" : Next lower Channel



Search Start.

The best tuning position is automatically memorized.

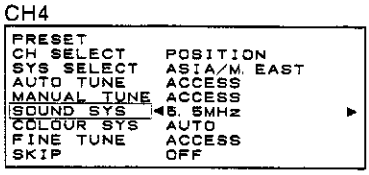
2
CH4



4

Push the "PRE." (PRESET) button.

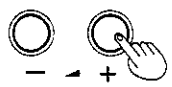
2
CH4



"SOUND SYS" Condition.

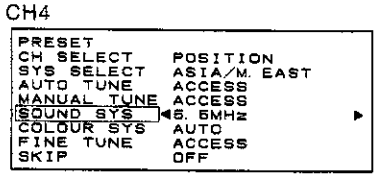
Tuning Procedure

5



If the sound is not clear or no sound is produced on a Programme Number Position, push the Volume Up "+" or Down "–" button.

2
CH4



You may improve the Sound quality.
The sound indicator will change as follows.

4.5MHz ⟷ 5.5MHz
↕ ↕
6.5MHz ⟷ 6.0MHz

Note:
When sound volume is too small to confirm, turn it up by using the sound volume button on the remote control.

6

Push the "PRE." (PRESET) button 4 times.

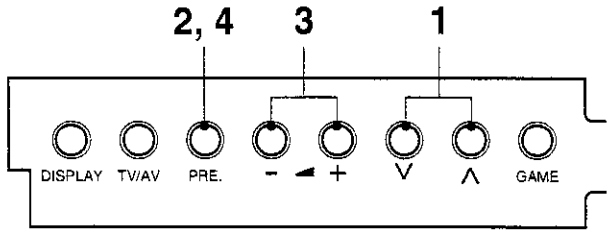
This returns the set to the normal viewing condition.

Helpful Hint

(1) If a clear picture cannot be obtained even when a Broadcast or AV signal is received, refer to the "Colour System Selection" operation on page 35.
(2) After the Manual tune is finished, push the Programme Number "∧" button to confirm the tuning condition for each Programme Numbers. If some Programme Numbers are unused, it is possible to skip such Programme Numbers. Please refer to the Programme Number skip operation on page 30.
(3) When using a VCR without video and audio input/output terminals, it is convenient to connect the aerial cable as indicated in the instruction manual of VCR and to set the designated channel to programme No."0". In that case, perform manual tune after setting the colour system and sound system in advance. Further, in multi-system VCR, it is more convenient to set the designated channel to several programme Numbers.

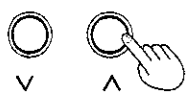
Tuning Procedure

Fine Tuning

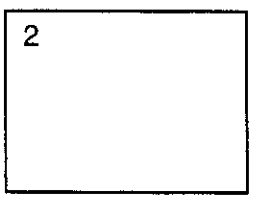


(TV set)

Under normal reception conditions this function is not required or necessary. However, in areas of poor reception or constant interference, a slight adjustment of the tuning may improve the picture and sound quality.

1 

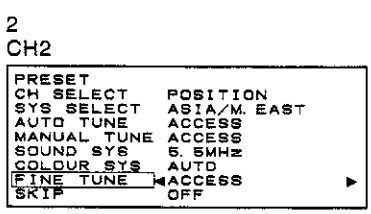
Select the channel which you want to improve, using the Programme Number Up "∧" or Down "∨" button.



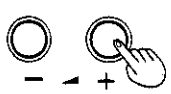
Select the desired Programme Number.

2

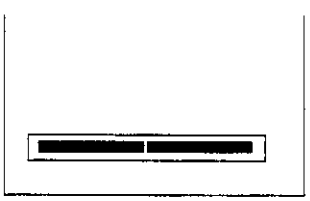
Push the "PRE." (PRESET) button 7 times, setting the Preset menu to "FINE TUNE".

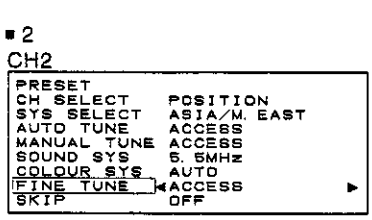


Fine Tune Condition.

3 

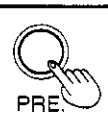
Push and hold the Volume Up "+" or Down "–" button until the clear picture is received.





Fine Tune Start.

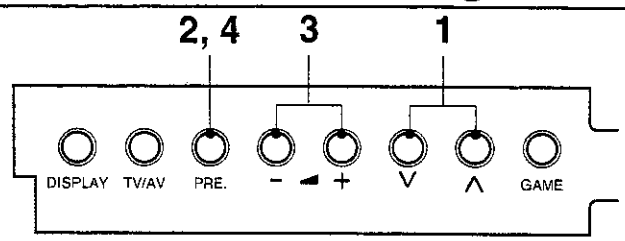
The AFC function is deactivated.
The "■" symbol appears to the left of the Programme Number.

4 

Push the "PRE." (PRESET) button twice.

This returns the set to the normal viewing condition.

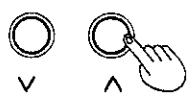
How to Cancel the Fine Tuning



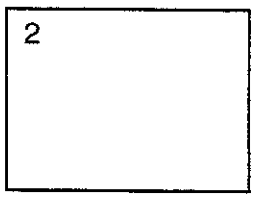
(TV set)

Cancelling previously adjusted (manually) fine tuning, means re-activating the AFC (Automatic Frequency Control) Function, also know as AFT (Automatic Fine Tuning). Re-activating the Automatic Fine Tuning means albaming the set to automatically tune to the optimum tuning position, for that programme Number.

1



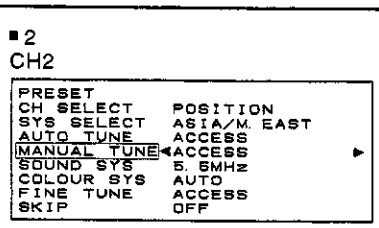
Select the "AFC OFF" Programme Number which you want to return to Automatic Frequency Control (cancel the manual fine tuning).



"AFC OFF" Programme Numbers are indicated to you by the "▪ " symbol to the left of the Programme Numbers in the On-Screen Display.

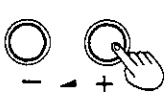
2

Push the "PRE." (PRESET) button 4 times, setting the Preset menu to "MANUAL TUNE".

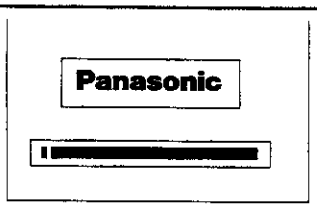


Manual Search Condition.

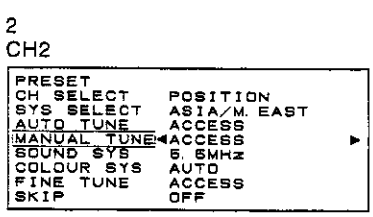
3



Push the Volume Up "+" or Down "–" button, briefly.



The best tuning position is automatically memorized. (In other words, manually tune away from the transmission, and then back to it.)



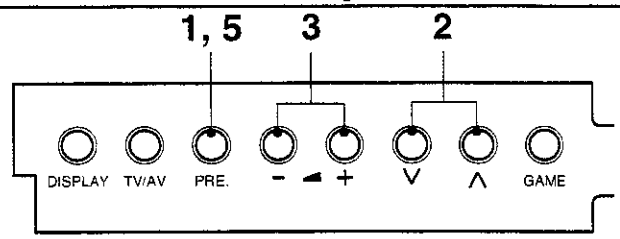
4

Push the "PRE." (PRESET) button 5 times.

This returns the set to the normal viewing condition.

Tuning Procedure

Programme Number Skip



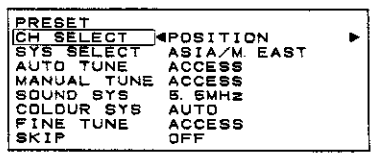
(TV set)

It is possible to skip Programme Number on which no TV stations are tuned appearing on the screen. The function is only effective when selecting Programme Numbers by pushing the Programme Number up or Down button either on the TV set or the remote control.

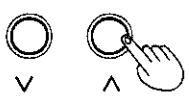
1

Push the "PRE." (PRESET) button 8 times, setting the Preset menu to "SKIP".

2
CH2

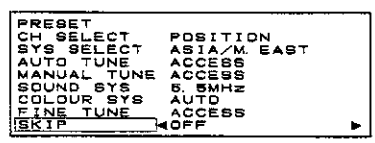


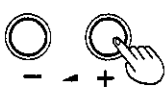
Channel Skip mode.

2 

Select a Programme Number you want to skip by pushing the Programme Number up "Λ" or down "V" button.

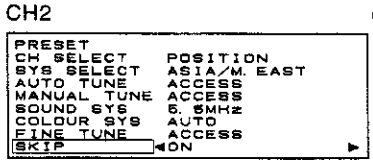
2
CH2



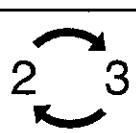
3 

Push the Volume up "+" or down "–" button.

2
CH2



The displayed "OFF" mode changes to "ON".

4 

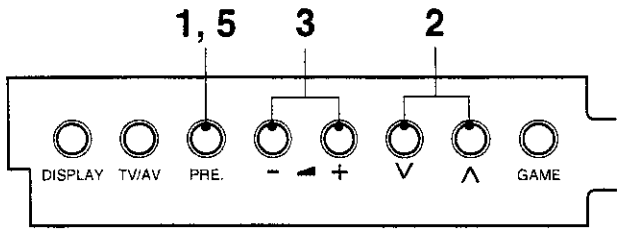
Repeat Steps 2 and 3 for the remaining Programme Numbers for which the Skip function is desired.

5

After the Skip Operation is completed, push the "PRE." (PRESET) button (once).

This returns the set to the normal viewing mode.

How to Cancel the Skip Function

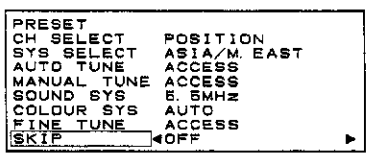


(TV set)

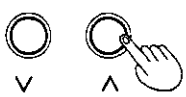
1

Push the "PRE." (PRESET) button 8 times, setting the Preset Menu to "SKIP".

1
CH1

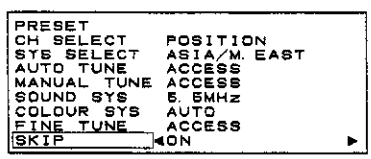


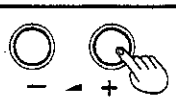
Channel Skip Condition

2 

Select a skipped Programme Number, by pushing the Programme Number Up "∧" or Down "∨" button.

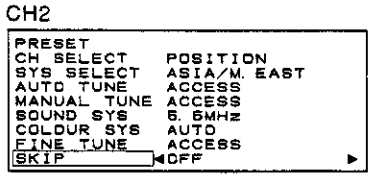
2
CH2



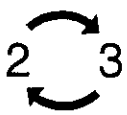
3 

Push the Volume Up "+" or Down "–" button.

2
CH2



The displayed "ON" condition changes to "OFF".

4 

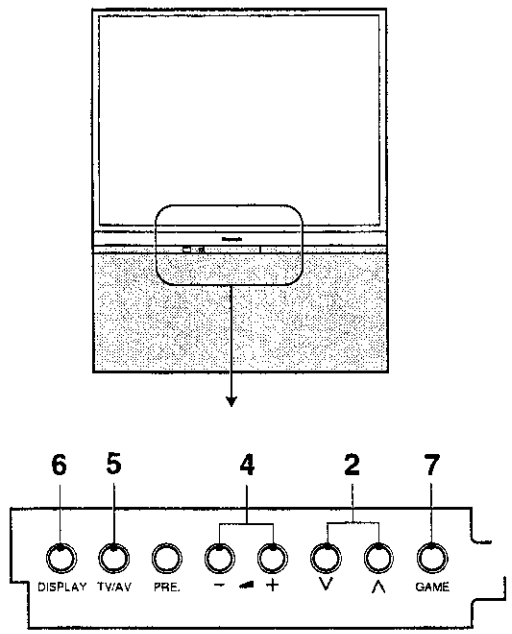
Repeat Steps 2 and 3, if you wish to cancel the skip function on any other Programme Number.

5

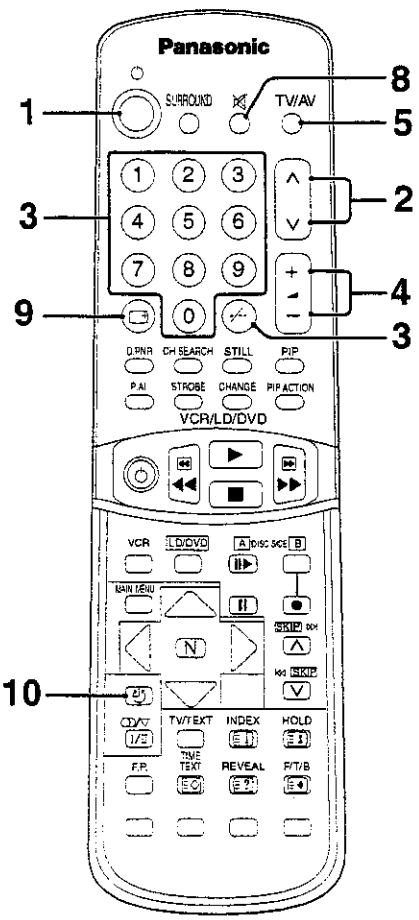
After the Skip Cancel Operation is completed, push the "PRE." (PRESET) button (once).

This returns the set to the normal viewing condition.

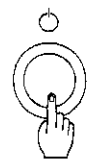
General Operation



(TV set)



1



How to switch the power ON or OFF / STANDBY mode.

The TV set must first be switched on at the wall outlet and at the Power Switch. (Refer to page 9)

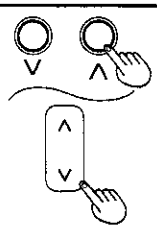
Push this button to turn the TV set ON, from STANDBY mode.

Push it again to turn the TV set OFF, STANDBY mode.

Note:

It is also possible to turn the TV set on STANDBY by pushing the "Direct Programme Number Selection" buttons (0-9) and the "Programme Number Up or Down" button, either on the set or on the Remote Control.

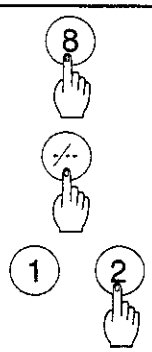
2



Programme Number Selection

Push the Programme Number Up "∧" or Down "∨" button to select the next higher or lower Programme number.

3



Direct Programme Number Selection (CH SELECT = POS.)

You can select the numbers directly by pushing "Number 0-9" button and the two digit Numbers by pushing "Two Digit" and "Programme Number" buttons.

Programme Number 8 ..... (8)

Programme Number 12..... (-/--), (1), (2)

Direct Programme Number Selection (CH SELECT = DIRECT)

You can select the number directly by pushing the corresponding programme number button.

Programme Number 8..... (8) / (0), (8)

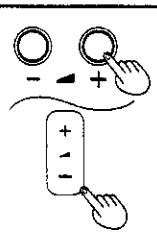
Programme Number 36..... (3), (6)

Programme Number 124... (1), (2), (4)

Note:

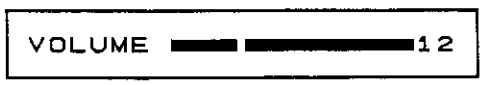
When the Skip setting for Programme Number 100 through 125 is on, the channel selection time will be shortened, and thus you can not input three digits at a time.

4

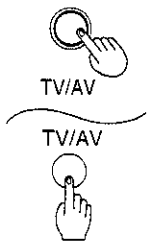


Volume adjustment

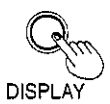
Push the Volume Up "+" or Down "–" button to increase or decrease the sound volume level.



General Operation

5 

TV/AV mode Selection
Push the "TV/AV" button to select TV, AV1, AV2, AV3, AV4 input signal modes sequentially.

6 

Display button
By pushing the Display button various demonstrations and on screen displays will appear.
Push the Display button a second time to halt the display/demonstration mode, and return the set to the normal viewing condition.

Note:
When this button is pushed, the Picture and Sound Menus change to Picture (DYNAMIC) and Sound (DYNAMIC).

7

Game button
Push this button to change to the AV2 input signal and enter Game mode. The picture and sound changes to a suitable mode for video games.

Note:
When you push this button during stand-by mode, the TV will turn on automatically and the picture and sound changes to a suitable mode for video games.

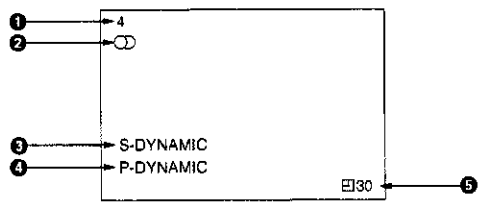
8

Sound Mute button
Push this button to mute the sound completely.
The "Mute" symbol will appear.
(Colour change to red)

Push the button once again to restore the previous sound level, and cancel the mute.

9

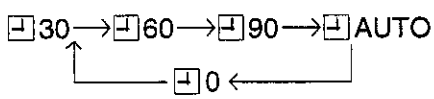
Recall button
Push the "Recall" button to display the current system status.
Push again to cancel.



❶ Programme Number (Refer to page 20)
❷ Audio Mode (Refer to page 41)
❸ Sound Menu (Refer to page 43)
❹ Picture Menu (Refer to page 42)
❺ Off Timer (Refer to page 33)

10

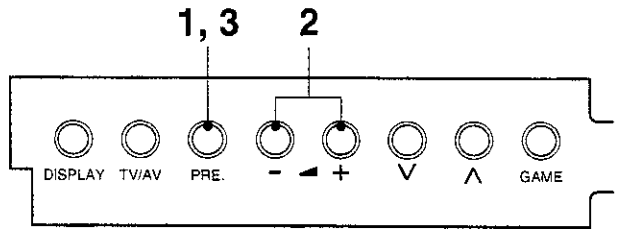
Off Timer button
The TV set may be preset to switch to stand-by after a fixed period.
By pushing "Off-Timer" button, you can select the preset time; either "30", "60", "90" minutes or AUTO mode.



Setting Off-Timer to AUTO mode.
If the set is not switched off when the TV station stops broadcasting, it will automatically go to Stand-by mode after 5 minutes.

Note:
Off-Timer setting will not operate in AUTO mode when the Television set is in AV mode.

Sound System Selection (Different region use differing systems)



(TV set)

This function is used only in the TV mode, and is not applicable in AV mode when the sound is not clear or no sound is produced on a Programme Number.

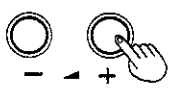
1

Push the "PRE." (PRESET) button 5 times.

2
CH2

PRESET	
CH SELECT	POSITION
SYS SELECT	ASIA/M. EAST
AUTO TUNE	ACCESS
MANUAL TUNE	ACCESS
SOUND SYS	◀5. 5MHz ▶
COLOUR SYS	AUTO
FINE TUNE	ACCESS
SKIP	OFF

Sound System Condition.

2 

Push the Volume Up "+" or Down "–" button repeatedly until the optimum sound is obtained.

2
CH2

PRESET	
CH SELECT	POSITION
SYS SELECT	ASIA/M. EAST
AUTO TUNE	ACCESS
MANUAL TUNE	ACCESS
SOUND SYS	◀6. 6MHz ▶
COLOUR SYS	AUTO
FINE TUNE	ACCESS
SKIP	OFF

The sound system will change as shown.

4.5MHz ⟷ 5.5MHz
⇕ ⇕
6.5MHz ⟷ 6.0MHz

Note:
These are different sound broadcast transmission systems applicable to differing countries.

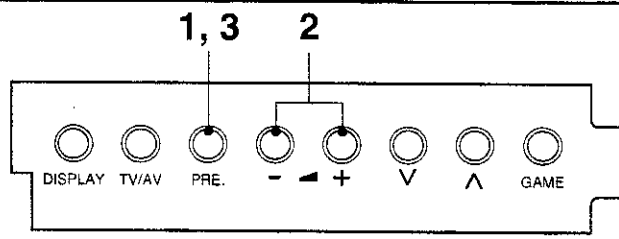
3

Push the "PRE." (PRESET) button 4 times.

This returns the set to the normal viewing condition.

The selected Sound System is automatically memorised.

Colour System Selection (Different region use differing systems)



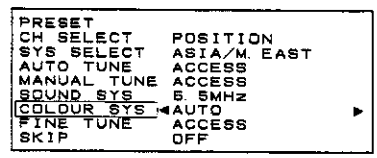
(TV set)

If a clear picture with current colours cannot be obtained when a Broadcast or AV signal is received.

1

Push the "PRE." (PRESET) button 6 times. (In AV mode it is only necessary to push the "PRE." (PRESET) button once.)

2
CH2

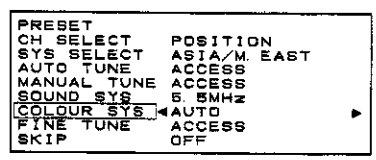


Colour System Condition.

2

Push the Volume Up "+" or Down "-" button repeatedly until the optimum image is produced.

2
CH2



The colour system will change as shown.

AUTO ⟷ PAL ⟷ SECAM
↕ ↕
NTSC3.58 ⟷ NTSC4.43

Note:
PAL, SECAM and NTSC 3.58 are different colour signal broadcast transmission systems applicable to differing countries NTSC 4.43 is a trick playback mode used in special VCR's to playback NTSC recorded video tapes through PAL television equipment.

3

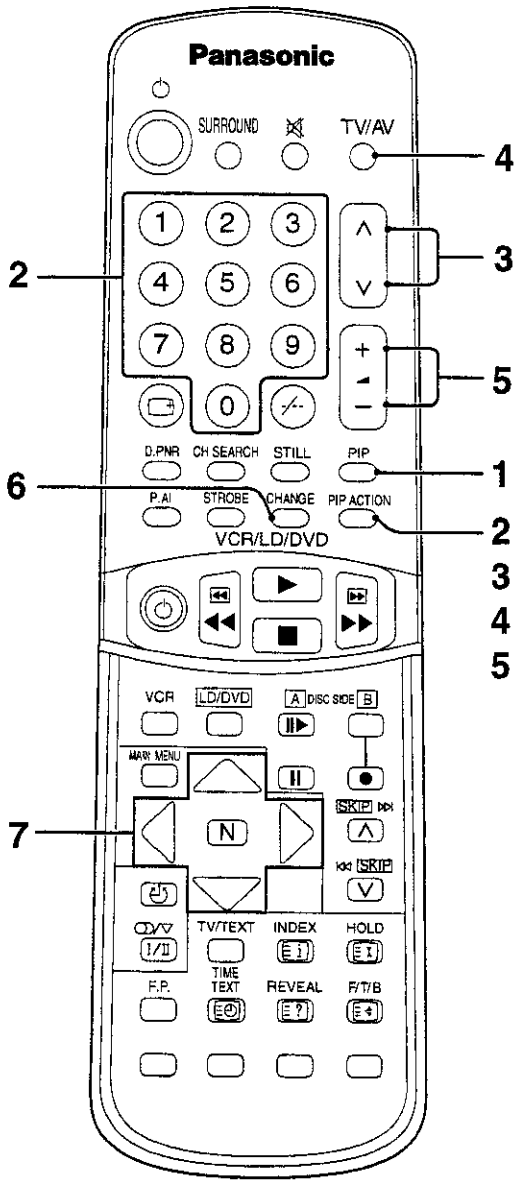
Push the "PRE." (PRESET) button 3 times.
(In the AV mode, push the "PRE." (PRESET) button once.)

This returns the set to the normal viewing condition.

The selected Colour System is automatically memorised.

Advanced Remote Control Operation

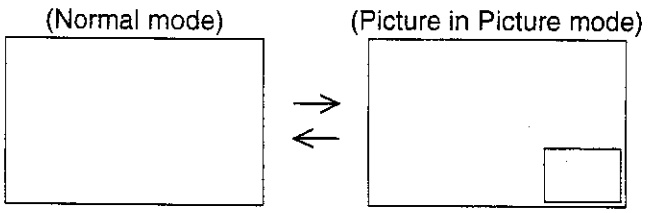
PICTURE IN PICTURE Operation

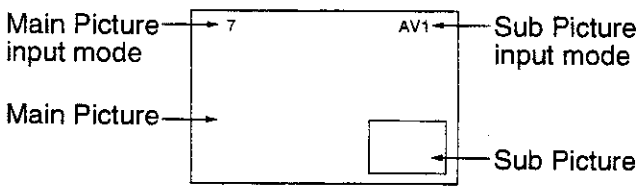


1 PIP

The TV broadcast signals and the external signals can be viewed simultaneously.
By pushing the PIP button to view the following PIP conditions.

PIP condition is as shown below



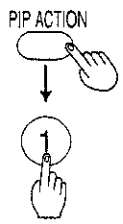


Note:

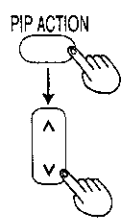
(1) The DVD (Y, PB, PR) signal does not display a Sub-Picture.

(2) When the set is in PIP mode, the left and right picture are processed by two different circuits. Therefore there may be a minor difference in clarity between the Pictures.

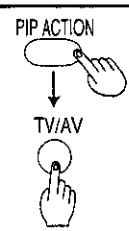
Advanced Remote Control Operation

2 

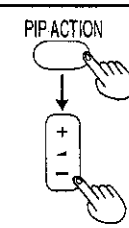
Sub picture Direct Programme (Channel) Number Selection
Push the "PIP ACTION" button and Direct programme Number Selection button to select the programme number during the Sub Picture input mode indication is blinking.

3 

Sub picture Programme Number Selection
Push the "PIP ACTION" button and Programme Number Up "∧" or Down "∨" button to select the next higher or lower programme number.

4 

Sub picture TV/AV mode Selection
Push the "PIP ACTION" button, and TV/AV button to select TV, AV1, AV2, AV3, AV4 input signal mode seguentially.

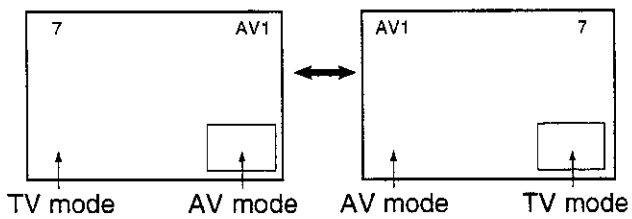
5 

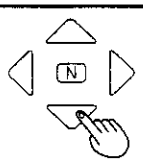
Sub Headphones Volume adjustment
Push the "PIP ACTION" button, and volume Up "+" or Down "–" button to increase or decrease the sub Headphones volume level.

Note:
The volume for the main picture on sub-picture can be adjusted separately.

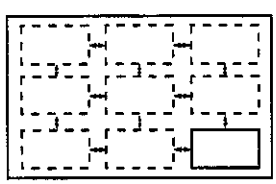
6

CHANGE
Push the "CHANGE" button to swap from Main picture to sub picture and vice versa.



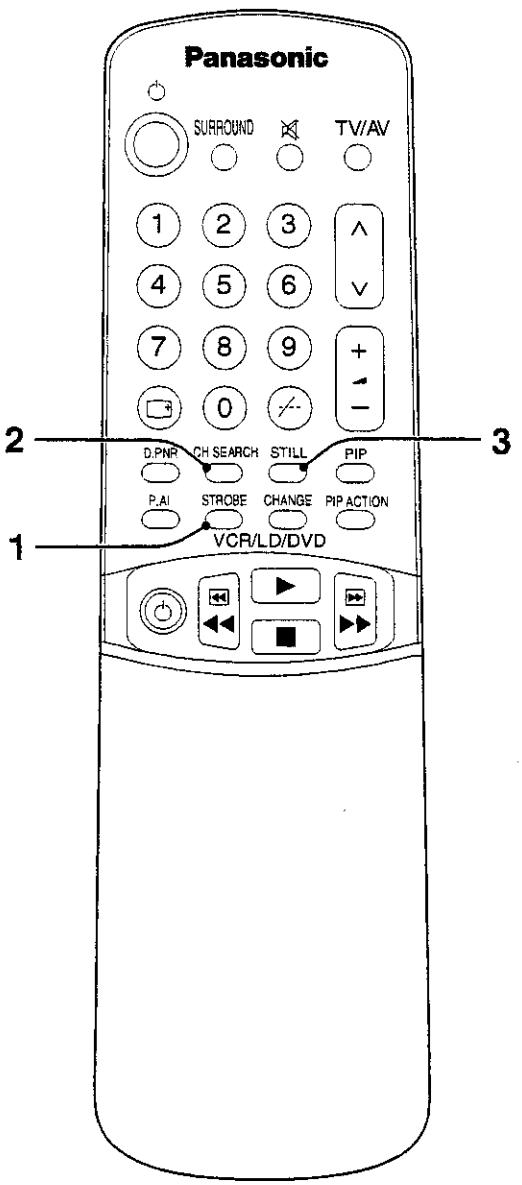
7 

Position buttons (Only for PIP mode)
By pushing each "Position" button, you can select the 9 positions of the Sub Picture on the screen.



Note:
By pushing the Normal "N" button while the picture in picture mode is activated, the Sub Picture position will move to the bottom Right corner.

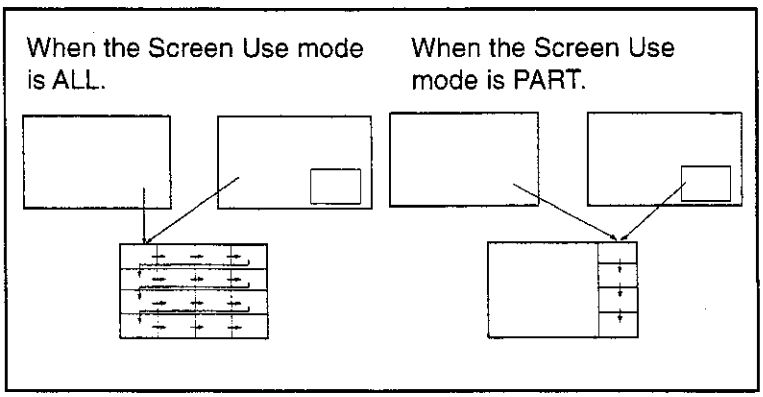
STROBE , CH SEARCH and STILL Operation



1

STROBE

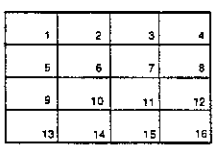
Push the "STROBE" button to display the sub-picture with a strobe effect.
When the "STROBE" is on, push the "STROBE" button again to turn off the strobe, or push the "STILL" button to freeze the strobe image.
Push the "STILL" button again to restart the strobe effect.



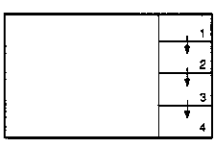
2

CH (Channel) SEARCH

By pushing this button, it is possible to search through all tuned programme numbers.
Push the desired programme number.



When the Screen Use mode is ALL.



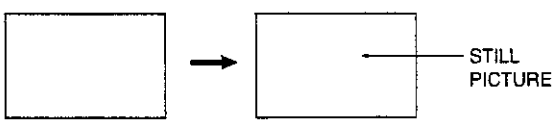
When the Screen Use mode is PART.

3

STILL mode

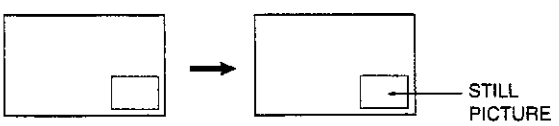
Normal Viewing Condition:

Push the Still button and the Main picture as a still frame.

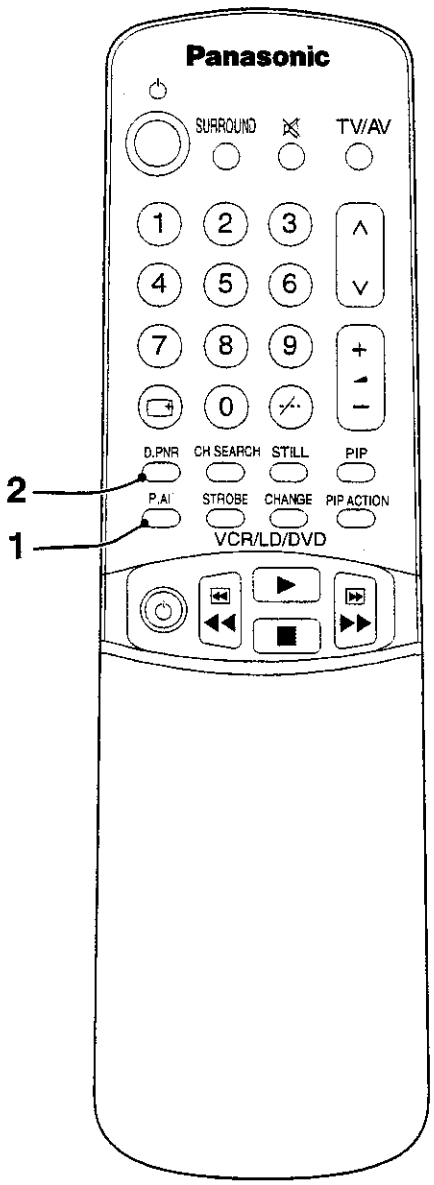


PIP mode is ON:

Push the Still button to display the Sub picture as a still frame.



P.AI and D.PNR Operation



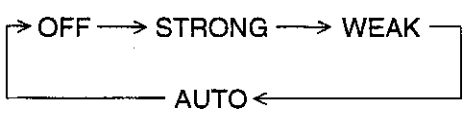
1

P-AI (Picture-Artificial Intelligence)
The P-AI continuously detects fine difference in the picture signal, with great precision, and including the picture brightness, black level and contrast. This function automatically adjusts the picture to the best quality for the scene, and reproduces images that provide a sense of depth.

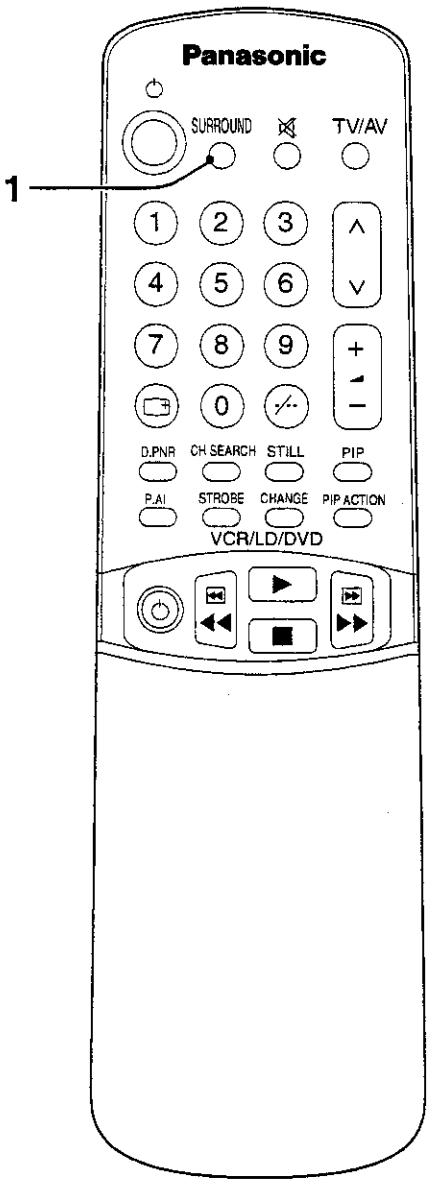
2

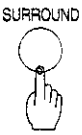
D.PNR
This Picture Noise Reduction System is designed to reduce picture noise during poor quality reception conditions.

The D.PNR mode will change as shown.



Surround Operation



1 

Surround button

The benefits of surround sound are enormous. You can be completely enveloped in sound; just as if you were at a concert hall or cinema.

The surround effect can be obtained without the use of external surround speakers.

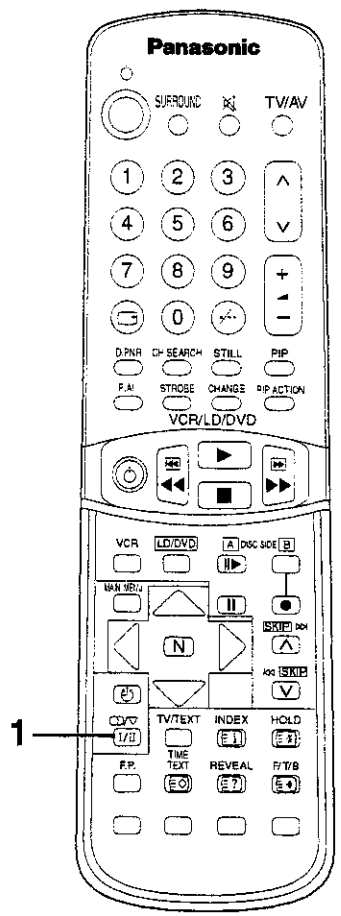
On screen display during surround mode.

	Type of broadcast	On-screen display
TV mode	• MONO (including STEREO switched to MONO by you) and BILINGUAL	SURROUND MONO ↕ SURROUND OFF
TV mode	• STEREO	SURROUND STEREO ↕ SURROUND OFF
AV mode	• Select the AV mode (AV1, AV2, AV3 and AV4)	SURROUND STEREO → SURROUND MONO → SURROUND OFF → SURROUND STEREO

Note:

If the stereo signal is poor or the receiving conditions are not optimum or if STEREO: MONO automatic switching occurs, it is recommended that "STEREO" switch to MONO (Refer to page 41) be used. If problems or unusual sudden effects are encountered in any of the surround modes, it is recommended that "SURROUND OFF" be selected.

Stereo Reception



1

When you receive the stereo/bilingual sound system, sound output modes can be selected by pushing the stereo/bilingual sound selection button.

Audio Signal	Mode Indicator
STEREO	◯◯
MAIN Ⅰ	Ⅰ
SUB Ⅱ	Ⅱ
MONO	▽

	Type of broadcast	Mode Indicator
NICAM	Regular broadcast (Standard Audio)	No Indicator
	Regular + NICAM MONO Ⅰ (MAIN Ⅰ)	Ⅰ ⟷ ▽
	NICAM STEREO	◯◯ ⟷ ▽
	NICAM DUAL MONO (MAIN Ⅰ / SUB Ⅱ)	Ⅰ → Ⅱ ↕ ▽
A2 (German)	Regular broadcast (Standard Audio)	No Indicator
	BILINGUAL or DUAL MONO : MAIN Ⅰ / SUB Ⅱ	Ⅰ ⟷ Ⅱ
	STEREO	◯◯ ⟷ ▽

Note:

(1) The "A2 (German)" stereo/bilingual TV sound transmission system is used in the following countries; Australia, Malaysia, Thailand, Indonesia, etc.
The "NICAM" stereo TV sound transmission system is used in the following countries; New Zealand, Singapore, Hong Kong and China.

(2) If the stereo signal is poor or the receiving conditions are not optimum of if STEREO: MONO automatic switching occurs, it is recommended you switch from STEREO to MONO.
When the broadcasting mode changes to "STEREO" or "MONO" after you have selected "MONO" mode, change over to "STEREO" mode will be made automatically.

Note:

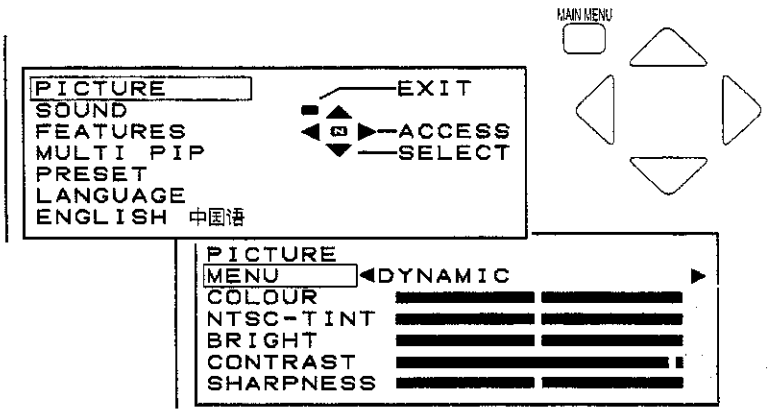
(1) Even when the contents of the receiving signal undergo changes, selection mode is kept intact.

(2) When the receiving conditions dereriorate, listening will be easier if the mode is set to the "MONO" position, using the stereo/bilingual sound selection button.

(3) "DUAL", also known as "DUAL MONO" or as "BILINGUAL" is not currently transmitted in some countries.

Main Menu Operation

Picture Menu Operation



1. Push the "Main Menu" button.
2. Select the "Picture" menu by pushing the Position Up "∧" or Down "∨" button and Access the "Picture" menu by pushing the Position Left "<" or Right ">" button.
3. Choose the option and adjust by pushing the Position Up "∧" or Down "∨" button, and by setting with the Position Left "<" or Right ">" button.

Picture Menu	Function
DYNAMIC	For viewing in brighter environments. This menu selects a higher than normal levels of Brightness and Contrast.
STANDARD	For viewing in normal (evening lighting) environments. This menu selects the normal levels of Brightness and Contrast.
SOFT	For viewing in a dark room. This menu selects reduced levels of Brightness and Contrast.
GAME	For playing TV GAME.

1. You can change the level of each Function (COLOUR, NTSC-TINT, BRIGHT, CONTRAST, SHARPNESS) for each Picture Menu.
2. Picture Menu mode will be memorized for each TV, AV1, AV2, AV3 and AV4 mode.

Item	Effect	Indicator
COLOUR	Less / More	COLOUR 32
NTSC-TINT	Reddish / Greenish	NTSC-TINT 32
BRIGHT	Darker / Brighter	BRIGHT 32
CONTRAST	Less / More	CONTRAST 32
SHARPNESS	Less / More	SHARPNESS 32

Note:

(1) When the to Multi PIP mode and Picture-in-Picture mode, the main and sub pictures are both adjusted simultaneously.

(2) Even if the TV is not set to "NTSC" mode, "NTSC-TINT" will be displayed and level adjustment would be possible. But it would not function.

(3) When the TEXT mode, NTSC-TINT and SHARPNESS will not displayed.

Helpful Hint (N Normalisation)

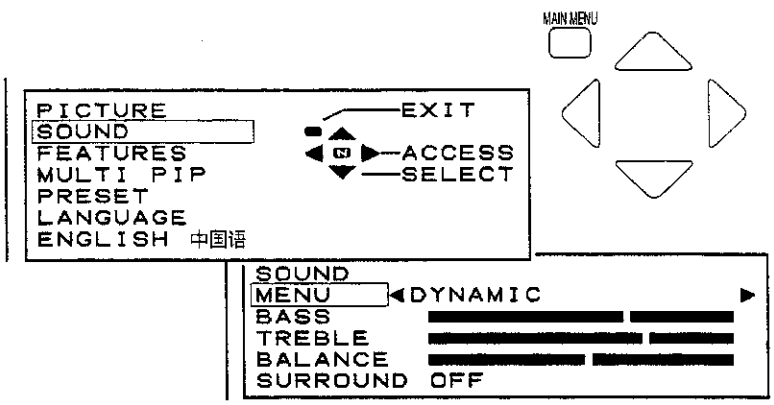
By pushing the Normal "N" button on the Remote Control while the Picture Menu is displayed, the selected Menu will be changed to the Normal mode.

Normalisation will not occur if the Menu is not displayed when the "N" button is pushed.

The Normal mode is the factory preset condition. Returning to this original condition is called "Normalisation".

Main Menu Operation

Sound Menu Operation



1. Push the "Main Menu" button.
2. Select the "Sound" menu by pushing the Position Up "∧" or Down "∨" button and Access the "Sound" menu by pushing the Position Left "<" or Right ">" button.
3. Choose the option and adjust by pushing the Position Up "∧" or Down "∨" button, and by setting with the Position Left "<" or Right ">" button.

Sound Menu	Function
DYNAMIC	Amplifies the Low frequencies and outputs optimum sound. For music programmes for example.
STANDARD	For Normal use.
AUTO	Sound and Music signals are altered and the best sound is automatically adjusted: sound (e. g. News and Human voice, etc.) is adjusted so as to be easy to hear and music is adjusted to give background impression.

1. You can change the level of each Function (BASS, TREBLE) for each Sound Menu.
2. Sound Menu mode will be memorized for each TV, AV1, AV2, AV3 and AV4 mode.

Item	Effect	Indicator
BASS	Less / More	BASS 32
TREBLE	Less / More	TREBLE 32
BALANCE	Left SP / Right SP	BALANCE 32

Note:

(1) When set to Multi PIP mode and Picture-in-Picture mode, the main sound is adjusted .

(2) When SOUND AUTO mode is selected in Sound Menu Operation, BASS and TREBLE can not be adjusted.

Helpful Hint (N Normalisation)

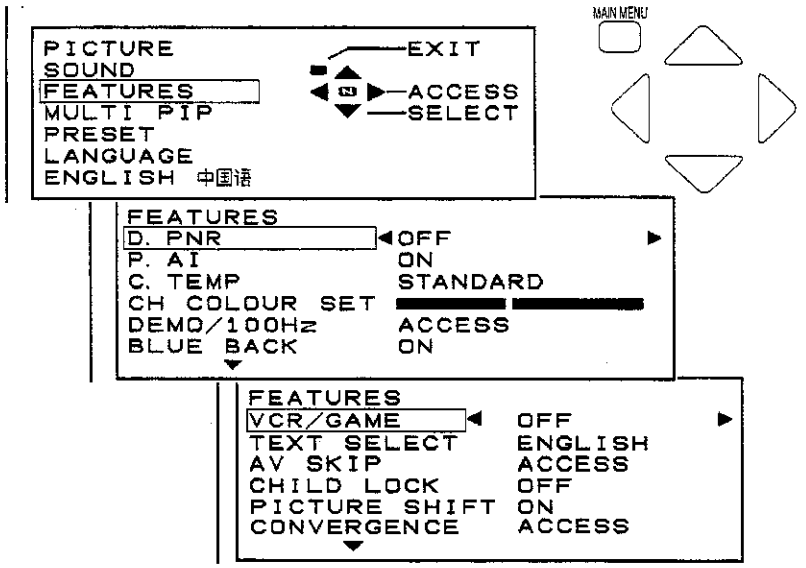
By pushing the Normal "N" button on the Remote Control while the Sound Menu is displayed, the selected Menu will be changed to the Normal mode.

Normalisation will not occur if the Menu is not displayed when the "N" button is pushed.

The Normal mode is the factory preset condition. Returning to this original condition is called "Normalisation".

Main Menu Operation

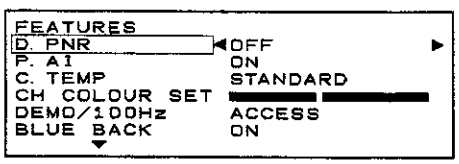
Features Menu Operation



1. Push the "Main Menu" button.
2. Select the "FEATURES" menu by pushing the Position Up "∧" or Down "∨" button and Access the "Features" menu by pushing the Position Left "<" or Right ">" button.
3. Choose the option and adjust by pushing the Position Up "∧" or Down "∨" button, and by setting with the Position Left "<" or Right ">" button.

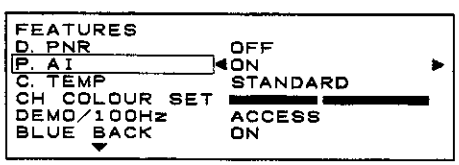
D.PNR (Picture Noise Reduction) mode

This Picture Noise Reduction System is designed to reduce picture noise during poor quality reception conditions.



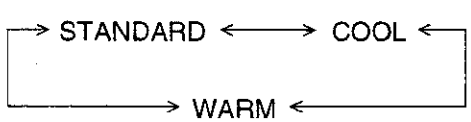
P.AI mode

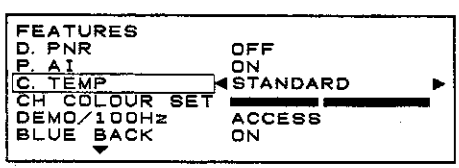
The P.AI continuously detects fine differences in the picture signal, with great precision, and including the picture brightness, black level and contrast.
This function Automatically adjusts the picture to the best quality for the scene, and reproduces images that provide a sense of depth.



C.TEMP (Colour Temperature) mode

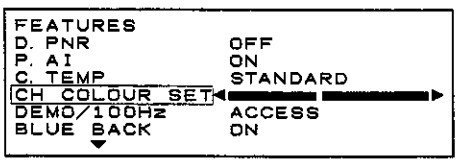
The C.TEMP (Colour Temperature = classifying white light) will change as follows.





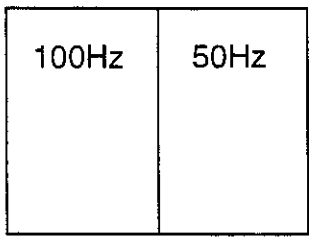
CH COLOUR SET mode

Colour density varying between broadcast channels can be adjusted to three levels for each reception channel.

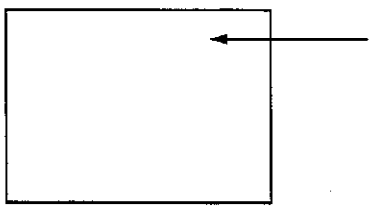


Main Menu Operation

DEMO/100Hz mode
(No indication in TEXT mode)
Demonstrates the 100Hz Super Digital Scan System and the 50Hz Scan System. (When the NTSC signal is received, this mode is not displayed.)

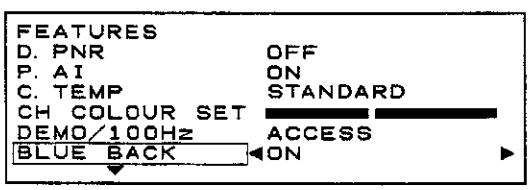


BLUE BACK mode
When no picture signal is received, or the signal is weak, the screen reverts to a blue background colour and the Sound is muted.
Disable this Feature to continue watching very weak signals.

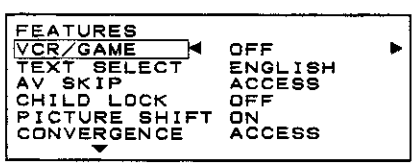


Blue if no input picture signal or input signal is weak

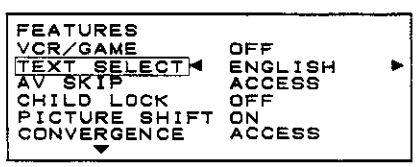
Note:
If BLUE BACK mode is set on while a VCR signal is being viewed, selecting CUE or REVIEW may cause the screen to revert to the blue background colour. Disable this Feature to view correctly.



VCR/GAME mode
Reproduction of irregular signals, such as certain TV games and rental video tapes, may be improved.



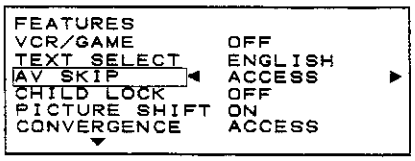
TEXT Select mode
(No indication for TC-51P100G, TC-51P100H)
The viewer can select from the following three text languages. Please select the option matching the text signal being received.



Display	Language
ENGLISH	English
CIS	Russian, Estonian, Lithuanian, Ukrain,
E.EUROPE	Polish, Czech, Serbiasn, Rumanian

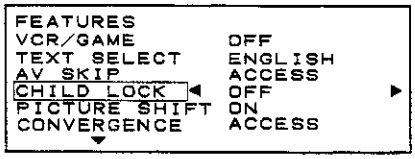
AV Skip mode

When the AV Skip mode is set on, this step is skipped at the time of selection with the TV/AV button.



CHILD LOCK mode
(No indication in TEXT input mode)

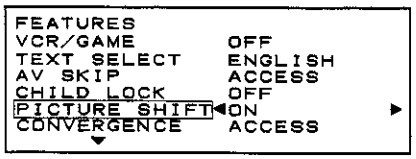
If the Child-Lock function is set ON, picture and sound of the TV/AV mode being viewed will disappear.



PICTURE SHIFT

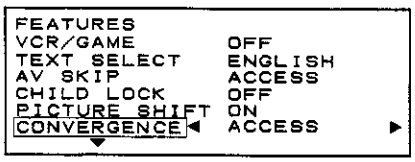
For use as a screen saver, the following displays change position (shift) every 20 minutes by several millimetres:

- Standard on-screen status indicators (all current system settings can be displayed using the Recall button).
- Input screen in game mode.

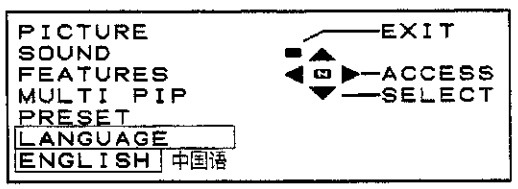


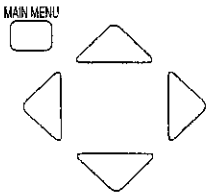
CONVERGENCE ADJUSTMENT

(See page 10)



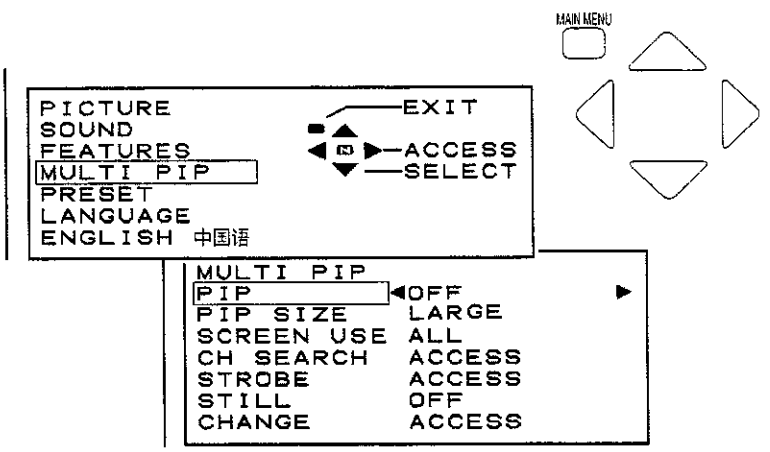
Language Menu Operation





1. Push the "Main Menu" button.
2. Select the "Language" menu by pushing the Position Up "∧" or Down "∨" button.
3. Push the Position Left "<" or Right ">" button. The on-screen language display will change.

Multi PIP Menu Operation

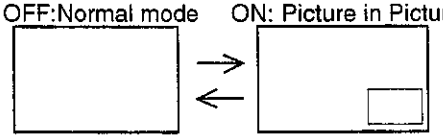


1. Push the "Main Menu" button.
2. Select the "Multi PIP" menu by pushing the Position Up "∧" or Down "∨" button and Access the "Multi PIP" menu by pushing the Position Left "<" or Right ">" button.
3. Choose the option and adjust by pushing the Position Up "∧" or Down "∨" button, and by setting with the Position Left "<" or Right ">" button.

PIP mode

Select the PIP mode.

OFF:Normal mode ON: Picture in Picture

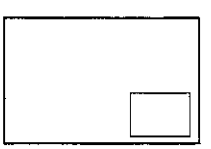


PIP SIZE mode

This feature allows the user to change the sub picture size in PIP mode.

SMALL ····· 1/16 size of the main picture
LARGE ····· 1/9 size of the main picture

When the PIP size mode is SMALL:

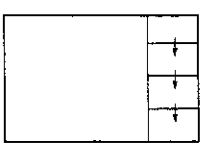


When the PIP size mode is LARGE:

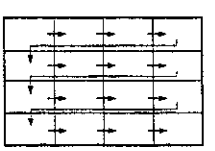
SCREEN USE mode

When using the strobe or channel search functions, select whether these features are to apply to the full screen, or to the sub-screen.

PART ····· Sub screen strobe/channel search
ALL ····· Main screen strobe/channel search



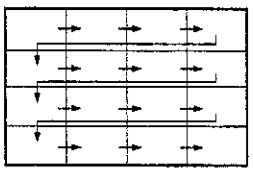
When the Screen Use mode is PART:



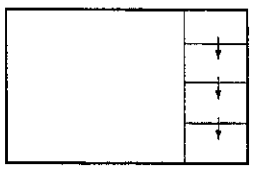
When the Screen Use mode is ALL:

Main Menu Operation

CH (Channel) SEARCH mode
When the CH SEARCH mode is ON, it is possible to search through all tuned programme numbers, Push the desired programme numbers.

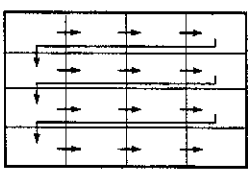


When the Screen Use mode is ALL:

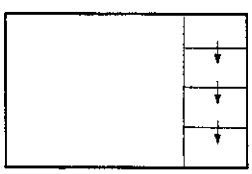


When the Screen Use mode is PART:

STROBE mode
When the STROBE mode is ON, to display the sub-picture with a strobe effect.

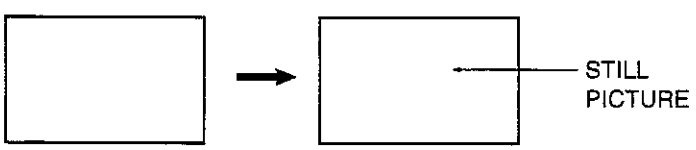


When the Screen Use mode is ALL:

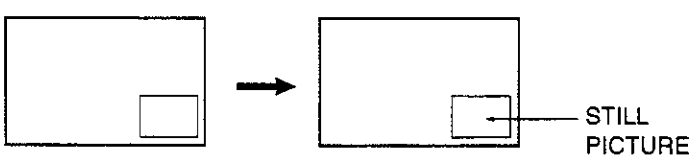


When the Screen Use mode is PART:

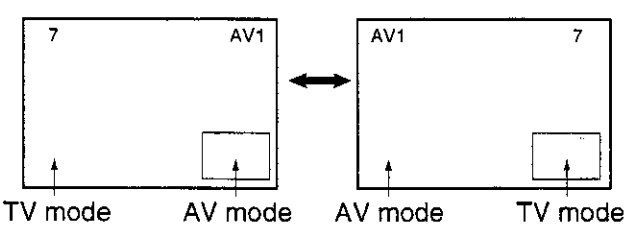
STILL mode
Normal Viewing Condition:
STILL mode on and the Main picture as a still frame.



PIP mode is ON:
STILL mode on to display the sub picture as a still frame.

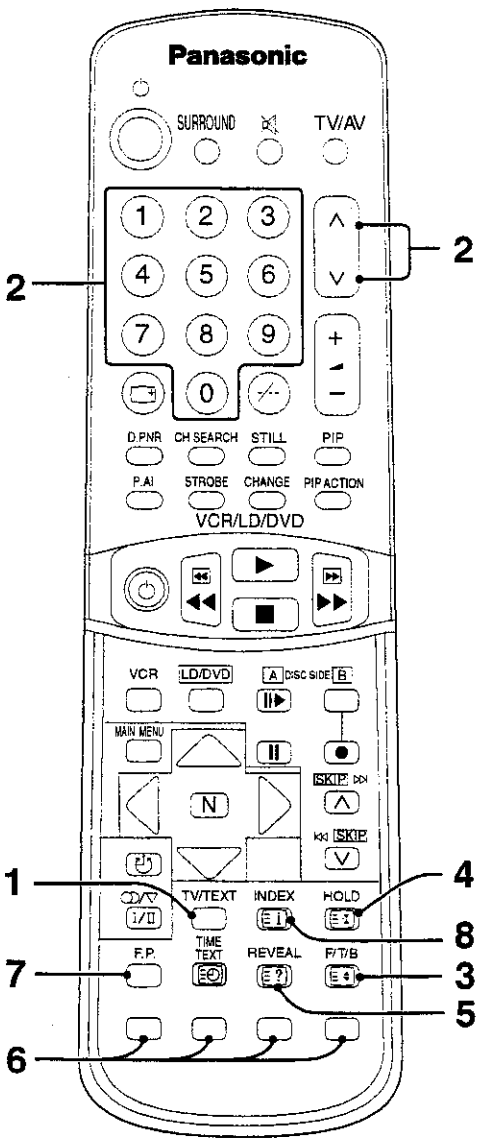


CHANGE mode
When the CHANGE mode is ON to Swap from Main picture to sub picture and vice versa.



Teletext Operation

(For TX-51P100 series)



- Teletext features may vary depending on the Broadcasting Companies and is only available if the channel selected is transmitting Teletext.
- When in teletext mode, the volume may still be altered to the desired listening level.

What is LIST mode?

In LIST mode, four different coloured page numbers are situated at the bottom of the screen. Each of these numbers can be altered and stored in the TV's memory.

What is FASTEXT?

In FASTEXT mode, four differently coloured subjects are situated at the bottom of the display. To access more information about one of these subjects, push the appropriately coloured button. This facility enables fast access to information of the subjects shown.

What are the advantages?

- Page selection at the touch of a Colour-coded button.
- Easy to use step-by-step selection of the topics subject.
- Reduction of waiting time.
- Page status line at bottom of screen so you always know which button will take you to the desired information.

Note:

Characters will be illegible unless you select the Text Language which matches the text being received.
Select the correct Text Language (Refer to page 45).

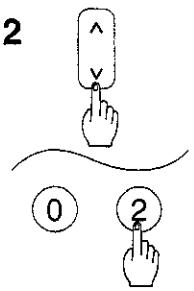
Teletext Operation

1 TV/TEXT

TV/Teletext mode
By pushing the "TV/TEXT" button, to change the TV/Teletext mode as follows.

TV ⟷ Teletext

2



Page Selection
Pages can be selected in two ways:
a) Push the Up/Down button to increase or decrease the page number by one.
b) By entering the page number, using 0-9 on the remote control.

3 F/T/B

Full/Top/Bottom
Push to expand the Top half of the page.
Push again to expand the Bottom half.
Push again to return to normal (FULL) size.

4 HOLD

Hold
Push to hold the current page.
Push again to cancel the hold.

5 REVEAL

Reveal
Push to reveal hidden words e.g.quiz page answers.
Push again to hide.

6

Red Green Yellow Light Blue

Colour-Coded buttons
In FASTEXT mode these correspond to the differently coloured subjects.
In LIST mode they correspond to the differently coloured page numbers.

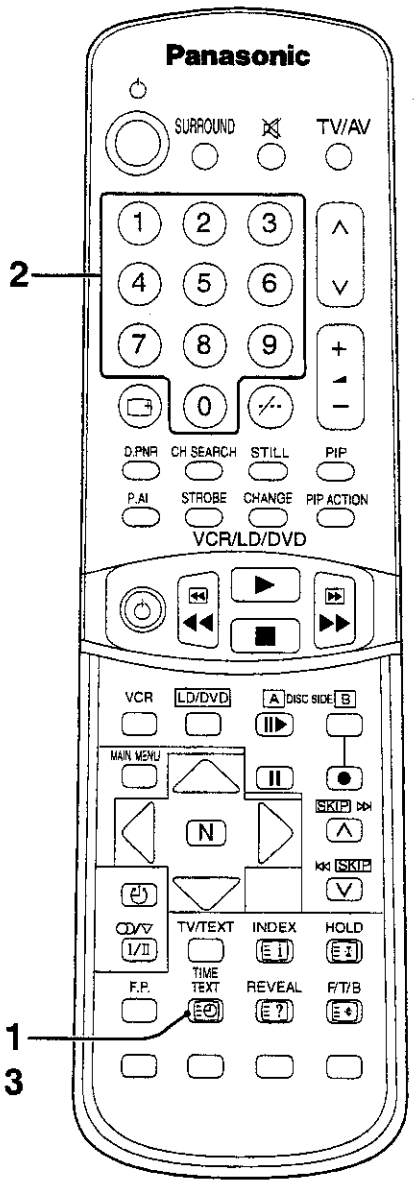
7 F.P.

Favourite Page (F.P.)
Stores a favourite page in memory for instant recall. To store such a page, the TV must be in LIST mode, push the Light BLUE button, select the page number, then push List Store. The page number is now stored.
Push F.P. to recall this page.

8 INDEX

Index
Push INDEX to return to the main index page.

Sub Coded Page Access



The TEXT menu will be displayed in TEXT mode. When teletext information exceeds more than one page, it may take some time for the automatic changing of the sub pages to reach the sub page you require. It is possible to enter your required sub page and continue watching the normal programme until the correct sub page is found. Select the required page number 22 using buttons 0-9.

1

Push the TIME TEXT button.

2

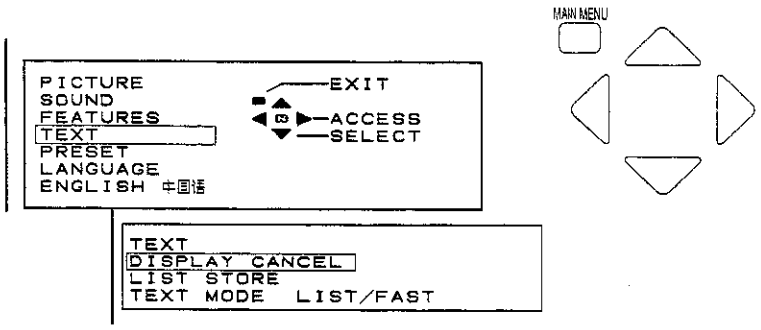
Enter desired sub page number.
To select page 6 enter 0, 0, 0 and 6.

3

Push the TIME TEXT button.

Teletext Operation

TEXT Menu Operation



1. Push the "TV/TEXT" button on the Remote Control to select the TEXT mode.
2. Push the "Main Menu" button.
3. Select the "TEXT" menu by pushing the Position Up "∧" or Down "∨" button and Access the "TEXT" menu by pushing the Position Left "<" or Right ">" button.
4. Choose the option and adjust by pushing the Position Up "∧" or Down "∨" buttons, and by setting with the Position Left "<" or Right ">" buttons.

DISPLAY CANCEL

Push the Position Left "<" or Right ">" button to view the TV picture whilst searching for a Teletext page. When found, the screen will display the page number at the top left.

News Flash

When a news flash page has been selected, push Position Left "<" or Right ">" button to view the TV picture, when an update is received, it will be displayed on screen.

Update

Push Position Left "<" or Right ">" button to see the update of information on certain pages. When an update is received, the page number will be displayed at the top left of the screen.

LIST STORE

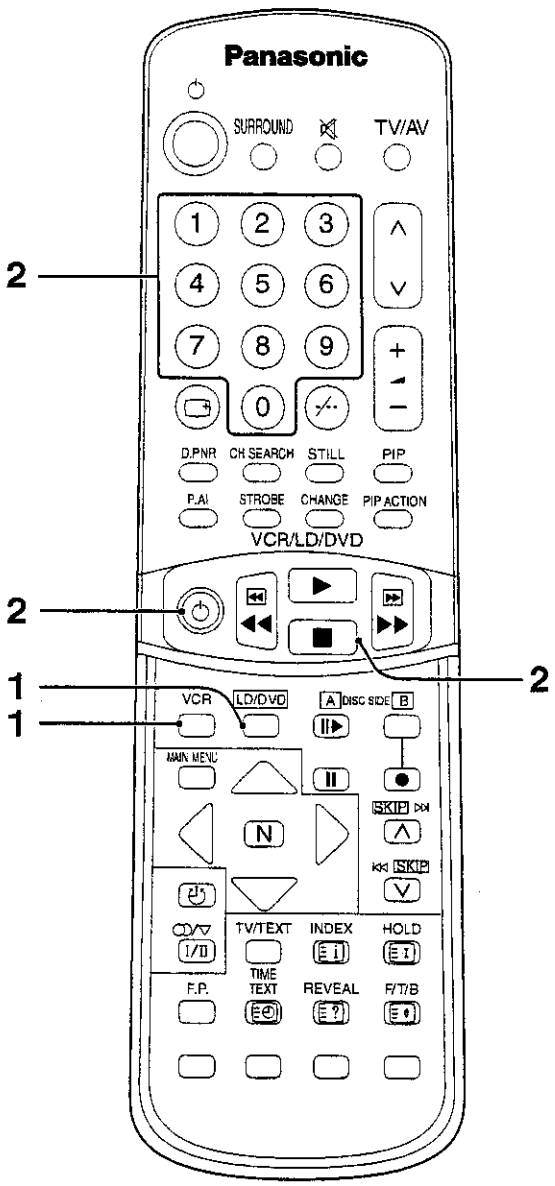
In LIST mode the four page numbers can be altered for channel position. To do this, push one of the colour coded buttons and enter the new page number.
Push and hold List store, the page number will change colour.

TEXT MODE

Push to change from FASTEXT mode to LIST mode and vice versa.
In FASTEXT mode four differently coloured subjects are displayed at the bottom of the page. Push the appropriate coloured button to access more information about one of these subjects.

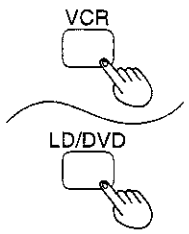
Operation of the VCR / LD / DVD

Manufacturer setting



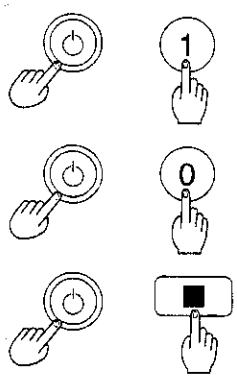
Remote Control Operation is possible for the VCR's, LD's and DVD's of the various manufacturers.
After completion of setting, execute the various operations after pushing the VCR or the LD/DVD button.

1



Push the button of the unit to be set (VCR or LD / DVD) .

2



While pushing the VCR / LD / DVD Power button, push the manufacturer code setting (enter the two digit code), and push the VCR / LD / DVD Stop button.

VCR

Manufacturer	Code	Manufacturer	Code
Panasonic/ National	10,11,12,13	NEC	40,41,42,43
		ORION	45,46
AIWA	15,16	PHILIPS	50
FUJITSU	20	SANYO	55,56,57,58
HITACHI	25,26,27	SHARP	60,61
JVC	30,31,32	SONY	65,66,67
MITSUBISHI	35,36	TOSHIBA	70,71

LD

Manufacturer	Code	Manufacturer	Code
Panasonic	10,11,12,13	SAMSUNG	30
KENWOOD	15,16	SHARP	35
PHILIPS	20	SONY	40,41,42,43
PIONEER	25		

DVD

Manufacturer	Code
Panasonic	70

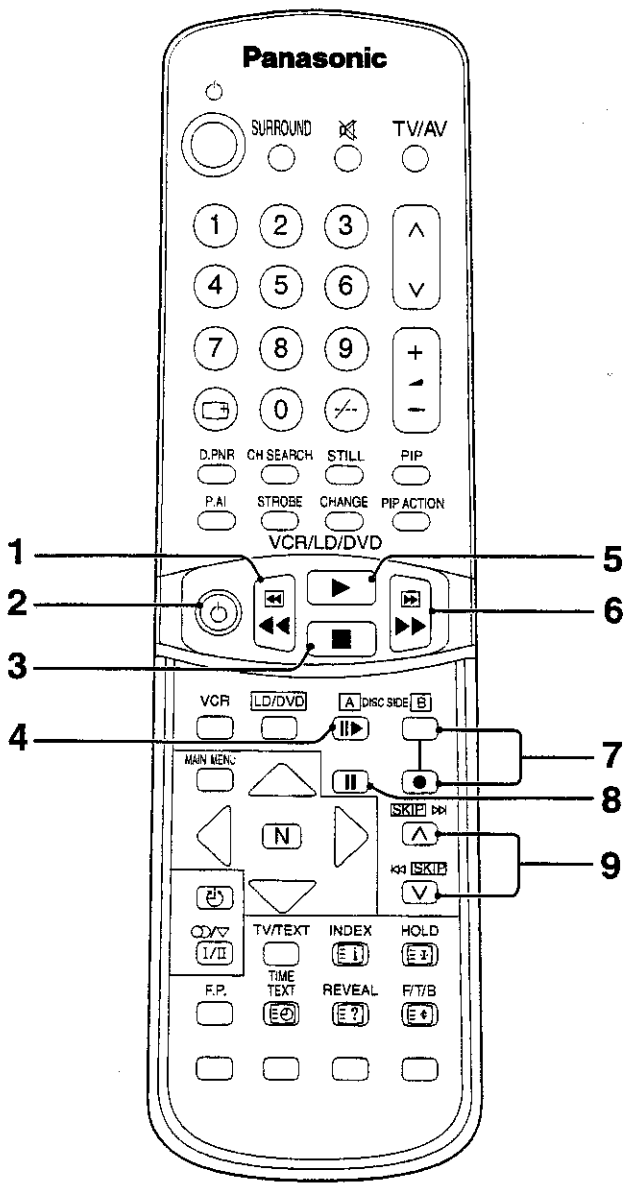
NOTE:
After setting, execute operation confirmation.
If there is no operation, set a different code.

Helpful Hint

(1) The respective VCR / LD / DVD manufacturer code is cancelled when battery has been exchanged.
Please set it again.
(2) Depending on the model, operation of VCR's, LD's or DVD's of the manufacturers listed above may not be possible.
(3) In some cases, new products may not be operative.
(4) It will not operate with other than the above manufactures.

Operation of the VCR / LD / DVD

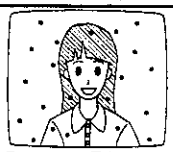
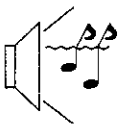
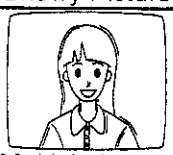
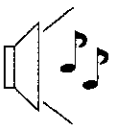
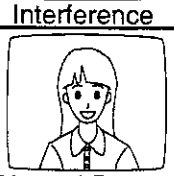
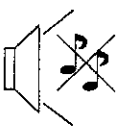
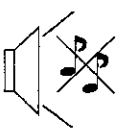
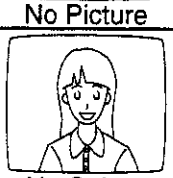
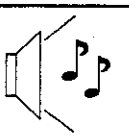
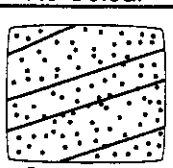
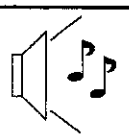
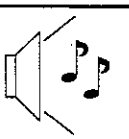
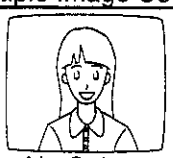
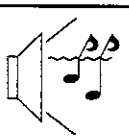
Execute the various operations after pushing the VCR or LD / DVD button.



Button		Function	
		VCR	LD/DVD
1		Rew (Rewind) / Review Button	Rew (Rewind) / Review Button
2		VCR Power Button	LD / DVD Power Button
3		Stop Button	Stop Button
4		Still Advance Button	DISC SIDE A Selection Button
5		Play Button	Play Button
6		FF (Fast Forward) / Cue Button	FF (Fast Forward) / Cue Button
7		Rec (Record) Button	DISC SIDE B Selection Button
8		Pause / Still Button	Pause / Still Button
9	SKIP ⏭ ∧ ⏮ SKIP ∨	Programme Number Up and Down Button	Programme Skip Button

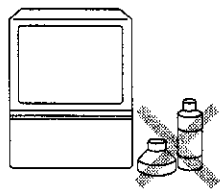
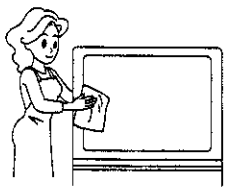
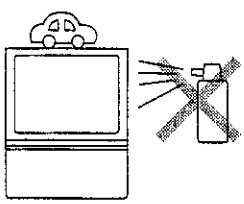
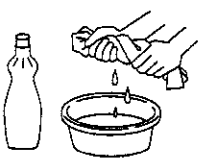
Troubleshooting

Before you call for service, determine the symptoms and make a few simple checks as shown below.

Symptoms		Checks
Picture	**Sound**	
 Snowy Picture	 Noisy Sound	Aerial Location, direction or Connections
 Multiple Image	 Normal Sound	Aerial Location, direction or Connections
Interference	Noisy Sound	Electrical Appliances Cars/Motorcycles Fluorescent Lamps
 Normal Picture	 No Sound	Volume (Check whether the mute function has been activated by the Remote Control.)
No Picture	 No Sound	Not plugged into AC outlet Not switched on Contrast and Brightness/Volume setting (Check by pushing the Power Switch or Stand-by button on the Remote Control.)
 No Colour	 Normal Sound	Colour Control
 Scrambled	 Normal or Weak Sound	Retune Channels
Multiple Image Colour	 Normal Sound	Convergence Adjustment (Refer to page 10)
 No Colour	 Noisy Sound	Sound System (Refer to page 34) Colour System (Refer to page 35)

Cleaning

To ensure continued excellent performance by this product, periodic cleaning is recommended.

	The unit contains many plastic parts. For this reason DO NOT use benzine, thinner or other chemicals to clean the unit.		Dust will accumulate on the picture screen. Please wipe with the supplied soft cloth from time to time. If you use a chemically treated cloth, please be careful to follow the instructions that come with the cloth.
	DO NOT bring into contact with insecticide or other volatile substances. DO NOT allow the unit to come into contact for extended periods with rubber or vinyl products.		Remove dirt and soiling by wiping with a light cloth. Even if the unit is heavily soiled, do not apply cleaner directly to the unit. Soak a cloth in a solution of neutral cleanser thinned with water. Then wring out the cloth, wipe the unit clean, and finish by wiping with a dry cloth. Do not use any type of cleansers on the picture screen.

Specifications

<table>
<tr><td>Power Source</td><td>TX-51P100X
AC Auto 110-240 V, 50/60 Hz

TC-51P100G, TC-51P100H
TX-51P100H

AC 220-240 V, 50 / 60 Hz</td></tr>
<tr><td>Power Consumption</td><td>275 W
Stand-by condition 0.7 W

265 W
Stand-by condition 0.7 W</td></tr>
<tr><td>Receiving System</td><td>
<table>
<tr><th colspan="2">21 Systems</th><th>Function</th></tr>
<tr><td>1</td><td>PAL B, G, H</td><td rowspan="7">Reception of broadcast transmissions and Playback from Video Cassette Tape Recorders</td></tr>
<tr><td>2</td><td>PAL I</td></tr>
<tr><td>3</td><td>PAL D, K</td></tr>
<tr><td>4</td><td>SECAM B, G</td></tr>
<tr><td>5</td><td>SECAM D, K</td></tr>
<tr><td>6</td><td>SECAM K1</td></tr>
<tr><td>7</td><td>NTSC M (NTSC 3.58/4.5 MHz)</td></tr>
<tr><td>8</td><td>NTSC 4.43/5.5 MHz</td><td rowspan="7">Playback from Special VCR's</td></tr>
<tr><td>9</td><td>NTSC 4.43/6.0 MHz</td></tr>
<tr><td>10</td><td>NTSC 4.43/6.5 MHz</td></tr>
<tr><td>11</td><td>NTSC 3.58/5.5 MHz</td></tr>
<tr><td>12</td><td>NTSC 3.58/6.0 MHz</td></tr>
<tr><td>13</td><td>NTSC 3.58/6.5 MHz</td></tr>
<tr><td>14</td><td>SECAM I</td></tr>
<tr><td>15</td><td>PAL 60 Hz/5.5 MHz</td><td rowspan="7">Playback from Special Disc Players and Special VCR's</td></tr>
<tr><td>16</td><td>PAL 60 Hz/6.0 MHz</td></tr>
<tr><td>17</td><td>PAL 60 Hz/6.5 MHz</td></tr>
<tr><td>18</td><td>SECAM 60 Hz/5.5 MHz</td></tr>
<tr><td>19</td><td>SECAM 60 Hz/6.0 MHz</td></tr>
<tr><td>20</td><td>SECAM 60 Hz/6.5 MHz</td></tr>
<tr><td>21</td><td>NTSC 50 Hz/4.5 MHz</td></tr>
</table>
</td></tr>
<tr><td>Receiving Channels</td><td>Regular TV
VHF BAND
2-12 (PAL / SECAM B, K1)
0-12 (PAL B AUST.)
1-9 (PAL B N.Z)
1-12 (PAL / SECAM D)
1-12 (NTSC M Japan)
2-13 (NTSC M U.S.A)

UHF BAND
21-69 (PAL G, H, I / SECAM G, K, K1)
28-69 (PAL B AUST.)
13-57 (PAL D, K)
13-62 (NTSC M Japan)
14-69 (NTSC M U.S.A)

CATV
S1-S20 (OSCAR)
1-125 (U.S.A CATV)
C13-C49 (JAPAN)
S21-S41 (HYPER)
Z1-Z37 (CHINA)
5A, 9A (AUST.)</td></tr>
<tr><td>Receiving Stereo System</td><td>NICAM I , NICAM B/G, NICAM D, A2 (German)</td></tr>
</table>

Specifications

Tuning System	Frequency synthesizer Auto Search Tuning	POS (Position) DIRECT	: 100 Position : 125 Position
Audio Output	26 W [13 W + 13 W] (MAX) 24 W [12 W + 12 W] (10 % THD)		
Headphones	3.5 mm Plug × 2		
Aerial Impedance	75 Ω Unbalanced coaxial		
Video/Audio Terminals	AV 1, 2, 3, 4	S-Video In	Y:1 Vp-p, 75 Ω C:0.3 Vp-p, 75 Ω
		DVD (Y / P_B / P_R)	
		Video In	1 Vp-p, 75 Ω
		Audio In	Approx. 0.5 V 47 KΩ
	Monitor Out	Video Out	1 Vp-p, 75 Ω
		Audio Out	Approx. 0.5 V 1 KΩ
	AV1 IN (Rear) : S-Video, Video, Audio L/R terminals AV2 IN (Front) : S-Video, Video, Audio L/R terminals AV3 IN (Rear) : Video, Audio L/R terminals AV4 IN (Rear) : Video or Y / P_B / P_R, Audio L/R terminals		
Accessories Supplied	Remote control Transmitter	TNQE194 ····· TC-51P100H, TC-51P100G TNQE196 ····· TX-51P100H, TX-51P100X	
	R6 (AA) Battery × 2 75 Ω coaxial aerial plug		
Dimensions (W × D × H)	1095 mm × 500 mm × 1371 mm		
Weight (Mass)	TX-51P100H, TX-51P100X : 60 Kg (Net) TC-51P100G, TC-51P100H : 62 Kg (Net)		

Note:
Design and Specifications are subject to change without notice. Weight and Dimensions shown are approximate.

Customer's Record

The model number and serial number of this product can be found on its cabinet. You should note this serial number in the space provided below and retain this book plus your purchase receipt as a permanent record of your purchase to aid in identification in the event of theft or loss and for Warranty Service purposes.

Model Number _____ Serial Number _____

Printed in Japan
MB0699S0(MS)

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